RAILWAY AGE

FREIGHT TRAFFIC ISSUE

AUGUST 5, 1950

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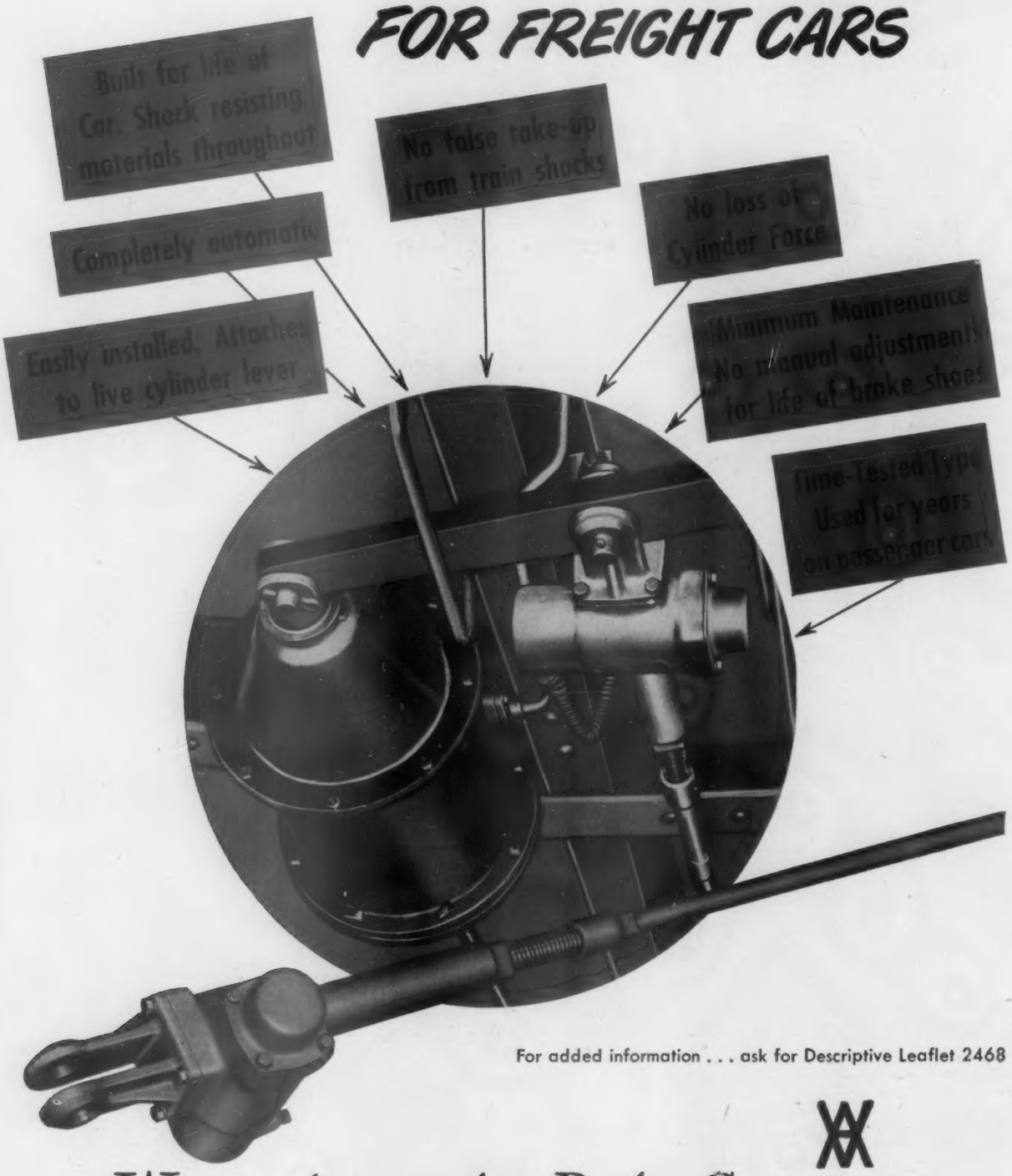
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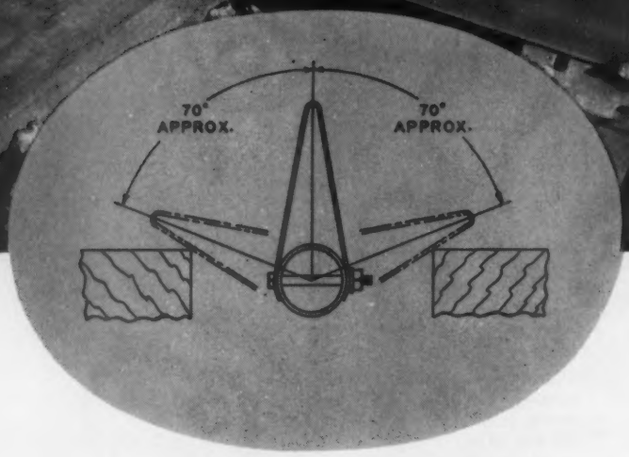

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WEEK AT A GLANCE

THE TEACHINGS OF EXPERIENCE: "The railways need both to get more cars and to increase their efficiency in using them as fast as they can . . . there is immediate need for the utmost increase in the efficiency of cooperation between shippers and railways." So says Samuel O. Dunn, publisher of this paper, in a signed article on page 17. Mr. Dunn, as the former editor of *Railway Age*, was an interested, well informed and highly competent observer of the railroads' performance in World Wars I and II. And now, as the nation heads into a period of intensified preparedness for what may—although we fervently hope won't!—become World War III, he draws upon his past observations to tell what experience teaches about freight movement in wartime.

MORE CARS: The railroads, last week and this, have given every indication of moving swiftly and surely to get additional cars. On July 28, at Chicago, the member roads of the A.A.R., in a special meeting, reported on page 53, agreed to build up their combined freight-car fleet from its present level of approximately 1,728,000 units to at least 1,850,000—a net increase of some 122,000 new cars—and to undertake extensive repair and rebuilding programs to upgrade existing cars and reduce the number of "bad orders." And in the few subsequent days orders have been placed by eastern, southern and western roads for upwards of 16,000 cars—6,001 for the New York Central, 5,000 for the Pennsylvania, 3,500 for the Union Pacific, 1,225 for the Seaboard Air Line, and 500 for the St. Louis-San Francisco; also 1,000 for the Canadian Pacific. And inquiries have been issued by the Baltimore & Ohio for 2,000 cars and by the Monon for 250.

BOILING POINT: The railroad equipment market is literally at the boiling point. In addition to domestic orders for over 16,000 freight cars, the S.A.L., the B.&O., the Frisco, and the Louisville & Nashville have ordered or arranged to lease a total of 179 Diesel-electric locomotives, and the Milwaukee took over from G.E. 12 straight electrics. There surely have been few individual weeks—quite possibly none—in which railroad dollar commitments for new rolling stock equalled or exceeded those of the seven days covered in this issue's Equipment & Supply News columns.

WHAT MAKES IT THE "GREAT" NORTHERN—is interestingly told in words, figures, pictures and charts in the copiously illustrated article starting on page 40.

SHIPPERS' VIEWS: Shipper opinion, as reflected in recent advisory board meetings, seems to be virtually unanimous as to the railroads' need for more freight cars. Actual or potential car shortages, and the bad-order situation, have come in for considerable criticism, but seldom more strongly than at the July 27 meeting of the Northwest Shippers Advisory Board at Superior, Wis. In the belief that shippers have a legitimate right to express their views as to railroad service; that railroad men need to know what shippers are thinking and saying; and that free and frank interchange of ideas is an absolute prerequisite to the close cooperation which is now so essential to adequate transportation, our News columns include a full account of the Northwest board's discussion.

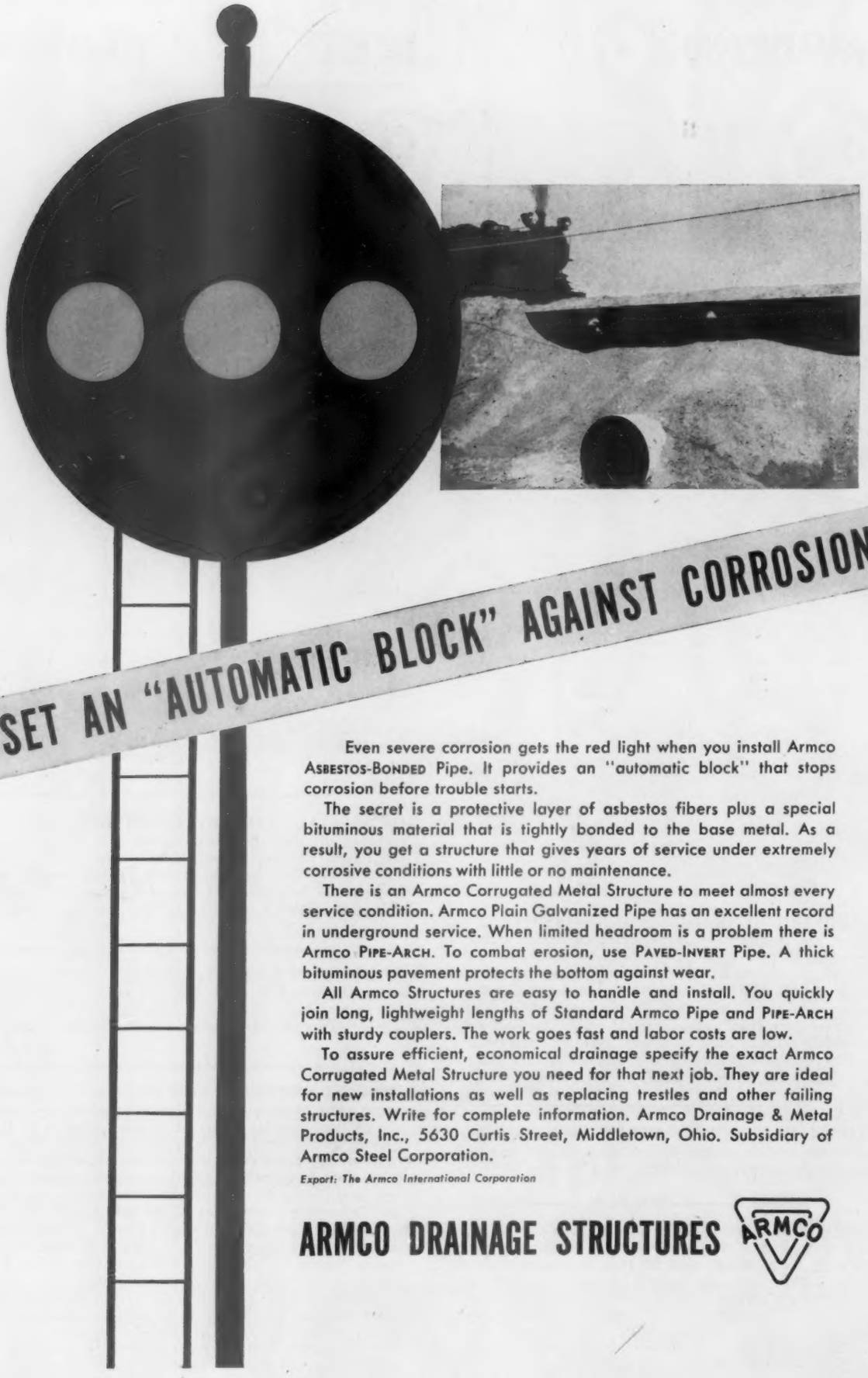
NEWS HIGHLIGHTS: Burlington opens 12-mi. line relocation in Wyoming.—Car loadings increase again.—Railroads present to I.C.C. their arguments against coast-to-coast trucking.—Gurley, White and Davis rebut truck testimony in final railroad presentation to Myers committee.—Further mail-pay hearings to begin November 29.—I.C.C. bureau releases motive power study.—Short lines to meet at Tulsa, Okla., October 3-4.—Patterson to continue on I.C.C.—Canadian "non-ops" set August 22 strike date.—Senate, House committees give favorable report on "union shop" bills.

CUTTING O.S.&D.'s: By keeping a careful record of car unloadings, by system-wide competition between station forces, and by close control, the L.&N., in three years, has reduced by 83 per cent its "over, short and damaged" exceptions per local car of l.c.l. merchandise. The program that has produced this noteworthy achievement is detailed on pages 24-25.

OF SPECIAL INTEREST TO TRAFFIC MEN: A description of new G.M.&O. pulpwood cars (page 26); how the P.R.R. provides better protection for small l.c.l. shipments (page 29); how Acme Fast Freight speeded up its Jacksonville freighthouse operations (page 31); a description of the Frisco's new Springfield, Mo., yard (page 33).

GOOD NEWS FOR N.Y.C. COMMUTERS: From now on some of them, at least, will ride in air-conditioned comfort in new M.U. cars built by the St. Louis Car Company. The new cars are described on pages 47-49.

HOW TO "DEREGULATE": One of the easiest and surest ways of putting the railroads in position to meet the competition of other forms of transportation—and thus to provide better service to shippers—is to free them from some of the more onerous restrictions now imposed upon them. Some eminently practical suggestions toward that end are included in the feature article which begins on page 20. The article is a reprint of the first-prize-winning paper in the New York Railroad Club's Roy V. Wright Memorial Essay Contest; the author is Clifford B. O'Hara, who, as a traffic analyst for the Shell Oil Company, writes from a shipper's viewpoint. We venture to suggest that the only real opposition to Mr. O'Hara's simple and sensible program is likely to come from government bureaucrats, for whom unnecessary regulation makes lucrative jobs, and from competing forms of transportation to whose advantage it is to keep the railroads bound hand and foot by red tape.



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New Heywood-Wakefield Walk-Over Seats Installed

In Fifty St. Louis Car Units for— NEW YORK CENTRAL SYSTEM

THE ST. LOUIS CAR COMPANY *has recently completed a group of multiple-unit cars of this type for the New York Central, fifty of which are seated with the new Heywood-Wakefield Model 1100 lever type Walk-Over Seats.*

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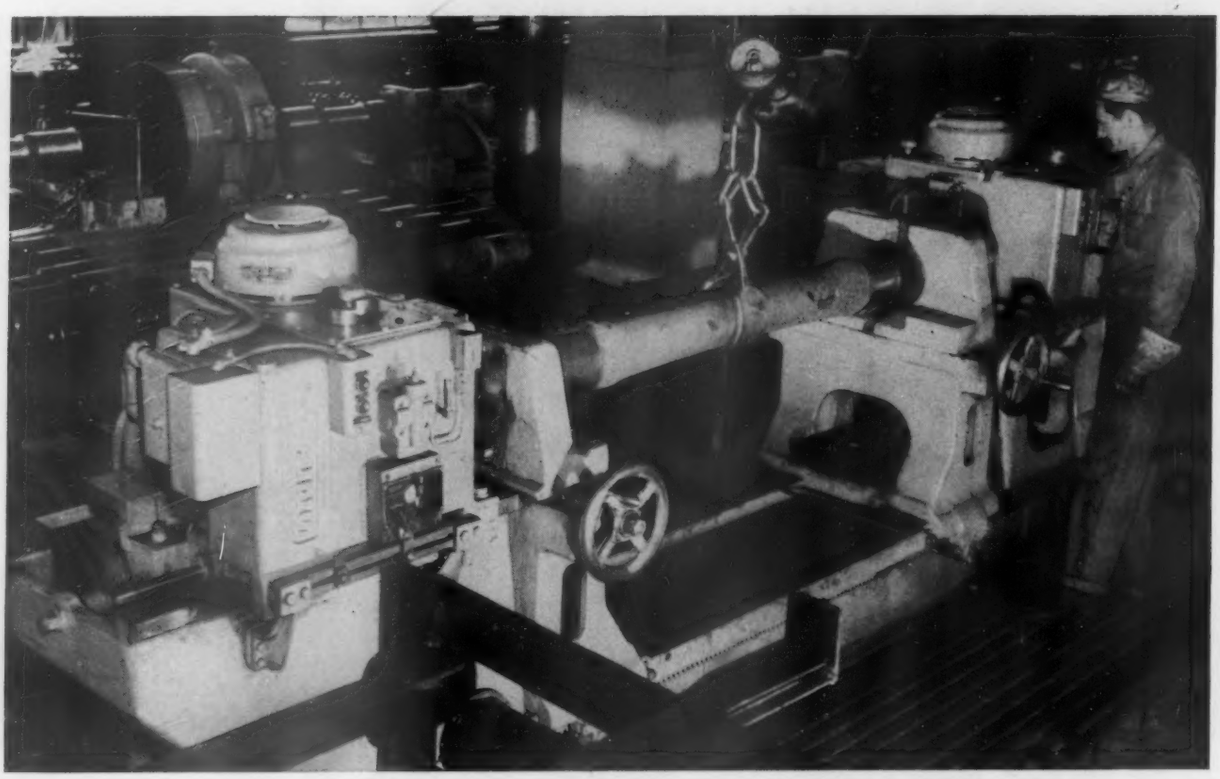

Axles re-centered in 3 minutes

back to original alignment . . .

This is the Niles Hydraulic Centering Machine in operation at the Glenwood wheel shops of the B&O.

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Machine can also be used to check concentricity of journals and wheel treads. It will accommodate axles with inside or outside journals up to 6½" dia. (up to 12" if special chucking jaws are ordered), and mounted wheel sets up to 57" dia. It is powered by two 3-hp motors, utilizes hydraulic feed, and is completely self-lubricated.

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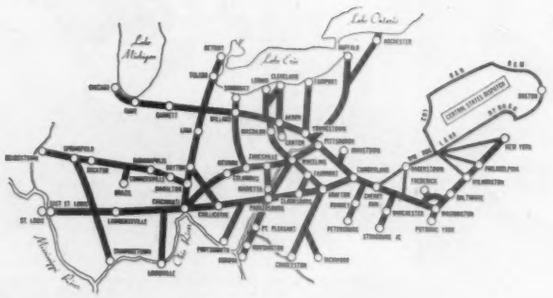

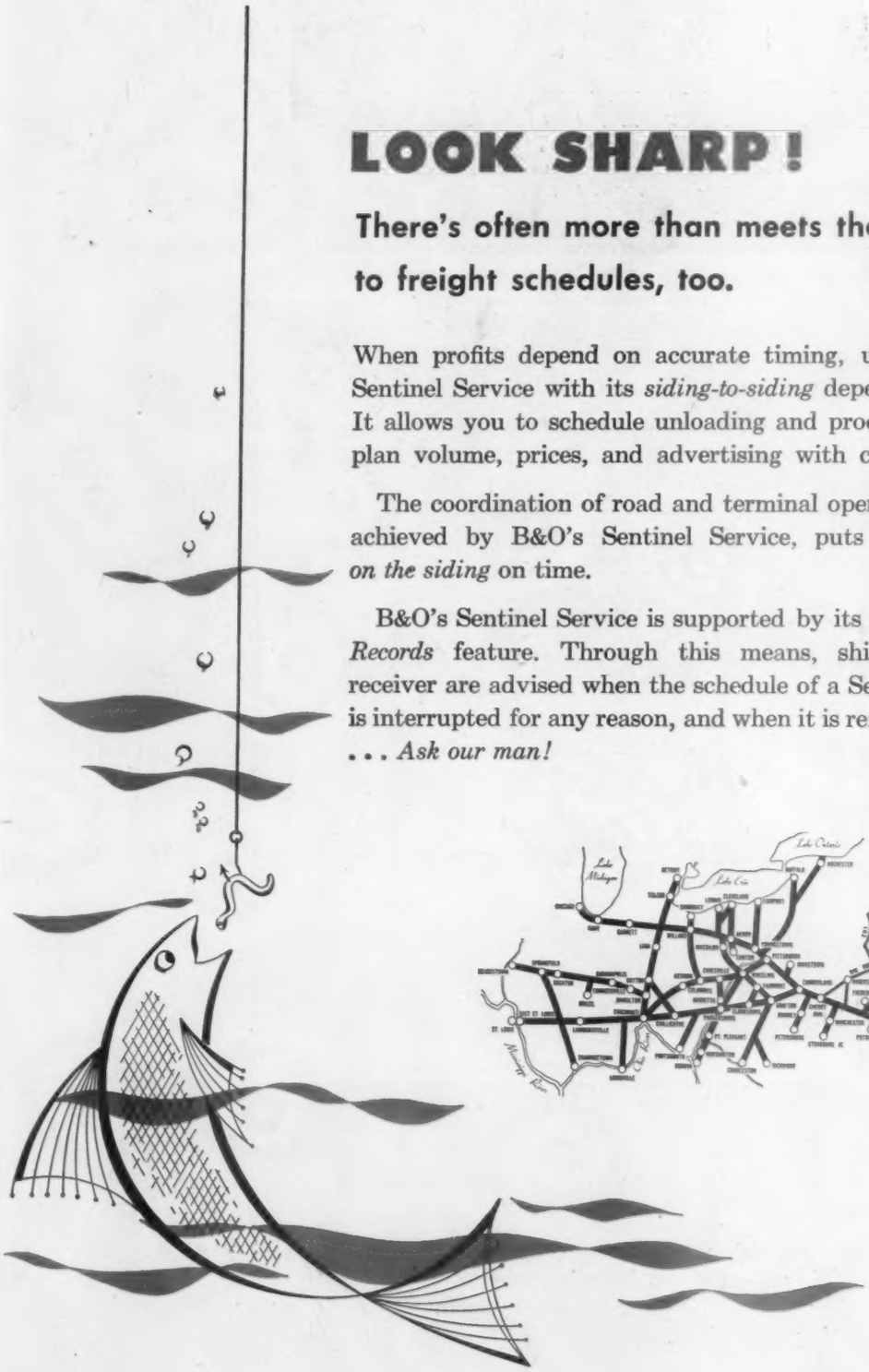

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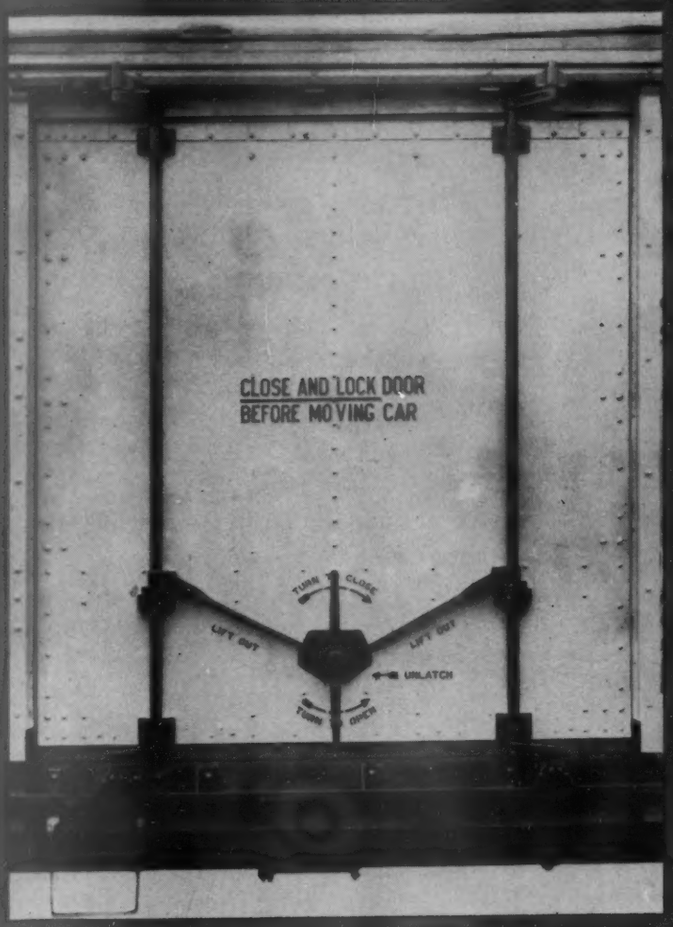

Modern Refrigerator Cars Are Equipped with Sliding Flush Doors

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WHENCE THE "BOX ON 8 WHEELS?"

Despite great mechanical advances in capacity, strength, reduction in weight ratio, reliability and riding quality, the average modern box car is not, so far as the carload shipper is directly concerned, much different from that of 50 years ago. The shipper is interested in the effect of the design of the car on the cost and speed of his loading and unloading operations. In such car classes as the coal hopper and well-type flat, he gets a car which is eminently suitable to his lading. In the ordinary box car, in contrast, he gets bare loading space under shelter. The wholly desirable effort of the railroads to reduce empty car-mileage to the minimum has to a very large extent required them to use a box car suitable for practically every known type of goods requiring cover—except perishables. Many of these goods cannot be handled safely in box cars unless the shipper, in effect, "unit-izes" the interior space by blocking and bracing, and by careful packaging and crating of the goods themselves.

Since the beginning of rail transportation, shippers have accepted as a routine part of shipment in carload lots the job of adapting the box car interior to their freight. The railroads themselves, as stowers of less-carload freight, first broke precedent by coming out with the container-and-flat-car combination in the early Twenties and, in the Thirties, with the compartmentized merchandise car having high-speed betterments. For carload movement, it was the automotive industry which was first accorded, on a large scale, a box car equipped with loading devices for a specific commodity; it is this industry for which the great majority of specially equipped box cars are still maintained.

There is ample evidence that the consignors of a growing number of commodities are not content with the bare "box on eight wheels" but insist upon the provision of equipment which lends itself to quick, cheap and safe stowage of their particular commodities. The reason is simple. By the elimination of blocking, bracing and crating, automobile manufacturers save up to $50 a car in labor and material costs alone, not taking into account a big decrease in time for loading, unloading and cleaning the cars, nor shipper benefits in virtual elimination of damage to lading en route. With big money savings like this, pressure by shippers for device-equipped box cars is sure to grow.

Overall Costs Count

Shipper proponents of device cars are alert to the fact that the full cost of transportation is not found in rates per car-mile or per ton-mile. They know that loading, unloading, crating, bracing and blocking—plus delays and lost business from damage—are all costs chargeable against transportation. They argue that, just as railroads reduce rates to hold business against competition, they must, in the same manner and to the same end, seek to reduce the concomitant costs of movement by rail by

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furnishing equipment which is better suited to certain commodities than the bare box car is.

The competition does it. The air lines are continually trying to develop aircraft designs and devices which will suit particular types of business—like early fruits and vegetables, or sample garment styles. They study traffic in the particular—not *en masse*. To the trucker—with his single, or at the most, double unit of haulage—empty mileage is a far greater loss than it is to the mass-transporter railroad. Yet, the highway carriers have gone in heavily for specialized units, suitable only for one or a few kinds of freight. A pick-and-choose agency of transportation can, of course, assure itself of full loads in both directions much more easily than a true common carrier can, who must perforce assume the empty movement arising from territorial imbalance of traffic.

It is true that the specialization of air and truck equipment is reflected to some extent in their rates, which may take account of the easing of the shippers' burden. By the same token, the railroads may consider the relative benefits of device cars in setting their own rates on commodities which enjoy them. The important thing for the roads to do, in this competitive world, is, by whatever combination of rates and equipment is necessary, to find the delicate balance which will give to the shipper of any given commodity a full, overall cost of transportation by rail which is competitive with rival transport agencies.

As this paper editorialized, some three years ago: "The real problem is economic, not technical. How much can the railroads afford to pay for the elimination of the shocks now a part of normal car movement? Can the designs be altered to produce the desired degree of protection within these economic limits?"

Offsets to Cost

Against the increased cost of owning and maintaining box cars which are more "loadable," there accrue to the railroads important money advantages. Unfortunately, the benefits of devices and betterments cannot—like car maintenance costs—be reckoned specifically in units of time or distance. But the railroads cannot overlook the proved advantages of equipped cars in cutting damage, as long as they have an overall claims bill running (in 1949) 26 per cent of their total net income. Second, the increased loadings in, and revenues from, device-equipped cars—compared with the same commodity in the ordinary car—is an important offset to any increased cost and empty mileage. Finally, maintenance costs themselves are favored to a substantial degree by the fact that device-car wall and floor interiors are not damaged by nails and other adjuncts of blocking and bracing. Thus, on balance, the net cost of the "fancy" box car may not be as great as appears at first thought.

Praiseworthy though the operating man's traditional antipathy toward empty car-miles may be, in the long run it becomes a foolish fetish if allowed to interfere with rendering a reasonably competitive service by cutting the full cost to the shipper of moving his freight by rail. The fact is, a railroad can better afford to haul around empty equipment than can any other form of transport. As a normal thing, except on certain transcontinental routes during the war, freight traffic in one direction on any one road is almost always seriously out of balance with that in the other. Flats, gondolas and hoppers usually go empty in one direction. Even the all-purpose box car has to move empty for an important fraction of its active life.

Despite the great increase in specialized equipment of all types over the past 30 years, the ratio of empty car-miles to total car-miles was, in 1949, exactly what the average has been for the entire period 1920 to 1949, inclusive—36.3 per cent. It is by no means certain that the provision of more device-equipped box cars will actually increase empty mileage. The versatility of the latest types of movable loader renders the car suitable for a large list of commodities on return hauls. The diffusion of industry and the growth of the "manufacturers and miscellaneous" category of freight relative to all traffic is undoubtedly bringing an end to the day when the kind of freight requiring protection moved only in one direction. A number of roads already enjoy a well-balanced, two-directional traffic of this class of commodity. It is the cruder, lower-rated "raw material" freight that tips the scales.

At the 1947 convention of the mechanical officers in Atlantic City, L. K. Sillcox, first vice-president of the New York Air Brake Company, declared: "The trend toward special equipment probably cannot be stopped unless the railways wish to invite the danger of losing some of the most profitable traffic to competitors. However, efforts should be made to direct this trend, so that the installations will not render the cars unsuitable for general service or increase empty car mileage."

Since they're already providing device cars for whole classes of shippers and since the demand for them is likely to increase in the future, the reasonable course would seem to be to foster a type of device-equipped box car which is suitable for the carriage of the widest range of commodities, commensurate with all reasonable assistance to the shipper, protection of lading and economy of maintenance. Otherwise the carriers may have forced upon them a host of varying, specialized cars which *will*, in fact, bring an empty-mileage headache.

WHAT PRICE TRAFFIC MANAGERS?

Some industrial traffic managers have good salaries, big titles and easy access to their chief executives. Others are in routine jobs, pushed under one of the operating departments of the company. All this is known by people in the traffic business. But there is now available to members of the National Industrial Conference Board a comprehensive, 60-page study setting forth detailed facts and figures about the stature, organization and responsibilities of the traffic personnel of a wide sample of in-

dustrial and commercial concerns. The report is based upon information gleaned from nearly 300 traffic managers representing all sizes and kinds of businesses. Presumably the study is not available to companies which are not affiliated with the Conference Board—but there are probably not many important industrial companies which deny themselves the advantage of this informative service.

That three-fourths of the traffic executives cooperating in the study receive $7,000 or less annually in salary and that incomes range as low as $3,000 a year can give little cause for satisfaction to anybody. To be sure, professional men are not judged by their income, but in business it is pretty much money that makes the mare go. More to the point, comparative salaries usually measure top management's estimate of the relative importance of the work of their several subordinate departments.

If this study be accepted as indicative, it is clear either that business underestimates the importance of its traffic executives or that not many traffic men really belong in the Big League. We believe the former explanation is the true one, because—as the Conference Board's report clearly shows on page after page—*some* businesses, of a wide range of sizes, rate the traffic department among the most important; and they pay and rank the traffic department head accordingly.

It follows that other firms, in whose operations transportation costs are equally important, underrate the role of the traffic executive because they are not aware of the almost limitless service functions his department may conceivably carry out, under more sympathetic direction. Specific examples of these services which are above and beyond the mere readying and routing of shipments include: (1) contributions to decisions for location of warehouses and branch plants; (2) aid in extending markets; (3) cooperation in designing products and packages for best transportation characteristics; and (4) direct assistance to customers in their traffic problems. Participation by traffic departments in phases of business other than "outside" transportation is shown by the study to be widespread. For example, of a total of 237 departments studied, 67 per cent play a major part in warehousing and 64 per cent in materials-handling (including that within the manufacturing processes themselves).

The report fixes upon seven factors as "affecting traffic's place in the company." Of these, four clearly are outside the control of the traffic manager, viz.: (1) Size of transportation bill in relation to volume of sales; (2) complexity of company's business; (3) direction of flow of majority of company's shipments; and (4) size of company. But the remaining factors *are* controllable: (1) "Functions performed beyond normal requirements of a traffic department"; (2) "general organization policy of the company"; and (3) "attitude of company executives toward the traffic function."

The more important the status of the industrial traffic executives of the country, the better it should be for the railroads. They can expect a statesmanlike attitude on matters of transportation regulation and aid only from men in industry who make it their business to learn and understand transportation problems. The more "say" and the more stature professional traffic men have in the conduct of American businesses, the quicker an end should come to the hypocritical but not infrequent position: "I'm for private enterprise in my business, but I like others to help pay my transportation bill." This study shows that there lies ahead a big job in educating business management to "traffic-mindedness."

WHY ASSIGN "METHODS" TO A SPECIAL STAFF?

One of the main reasons that an "office methods and procedures" department was set up on the Baltimore & Ohio was to achieve *quickly* the maximum economies possible through better methods of doing paperwork. An article in last week's issue by W. L. Price, the B. & O.'s vice-president, accounting and freight claims, sets forth the tangible accomplishments of this effort. The figures he cites are impressive, and reveal that the new department has in a large measure fulfilled its purpose.

It is just this factor of *speed* in making economies that is neglected all too frequently, not willfully of course. The heads of many different departments with whom the installation of improved methods has been discussed have a common complaint—which is that their duties are so legion that they cannot devote as much time as is desirable to making changes in methods in the interest of economy. A new method is devised in some part of the organization which is obviously an improvement over the old way of doing things—but whose business is it to spread this new method system-wide without loss of time? This is the place where the "methods and procedures" staff comes into action. The reason, probably, that the idea of using "methods and procedures" groups has not caught on more widely is that its function in satisfying this long-felt want on the part of department heads is not fully appreciated. It is certainly an idea which is applicable, not only in the field of paperwork, but in other railroad operations as well.

Actually, in a sense, "methods" groups are no strangers on the railroads. The loss and damage prevention organizations certainly must be placed in that category. Most railroads have in their various departments committees whose members, in addition to their routine duties, have been assigned the task of planning improvements in ways of getting departmental work done. Since these men must spend most of their time and attention on their regular jobs, it is easy to see why desirable changes do not come more rapidly. Isn't it likely that, at least on the larger roads, a full-time "methods" group could operate profitably in all major departments? The results of their research could do much to hold down costly labor expenses, so that more of the gross revenue could be carried over to net income or devoted to making improvements in service.

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What Experience Teaches About Freight Movement in War-Time

By SAMUEL O. DUNN
Publisher, Railway Age, and
Chairman, Simmons-Boardman Publishing Corporation

Co-operation of the shippers and increased efficiency in operation enabled the railways to meet the vastly increased demands of freight traffic in World War II. It seems not unlikely that even a greater increase in railway efficiency and more co-operation by shippers will be needed in the war the nation recently has entered. Nobody foresaw the great increase in demands on the railways in World War II. Likewise nobody can foresee now the increase in the demands on them that will be made.

During the long depression just prior to World War II the equipment of the railways had greatly declined and deteriorated. Nevertheless they handled the traffic of that war without freight car shortages until in 1945, after there had been in five years an increase (in 1944 over 1939) of 115 percent in ton-miles handled. But the railway equipment situation was quite different when this nation entered World War II from what it was when we recently entered the war in Korea. In the first third of 1942, after we were well into World War II, the average freight car *surplus* reported was 61,174. Throughout the first third of 1950, when ton-miles handled were 9 per cent less than in 1942, there were car *shortages* which had continued and increased until they reached a maximum in the week ended July 1 of 21,462, consisting almost entirely of shortages of 10,580 box cars, 3,881 gondolas and 5,689 hoppers.

The foregoing statistics show plainly—first, that the railways need both to get more cars and to increase their efficiency in using them as fast as they can; and, second, that there is immediate need for the utmost increase in the efficiency of co-operation between shippers and railways.

Not only did nobody anticipate at the outbreak of World War II that demands on the railways would increase as rapidly and as greatly as they did, but neither did anybody anticipate that increase in efficiency of

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The author of this article was for thirty-seven years editor of *Railway Age*. He was public relations adviser of the Railroads War Board in 1917, when that board, in the first year of World War I, was directing operation of all the railways, which were then still under private management. In the columns of this paper he did much following World War I to promote formation of the Shippers' Advisory Boards that made possible the co-operation between shippers and railways without which the railways could not have handled the hugely increased freight traffic of World War II. He writes with an experience and authority that are recognized by all informed shippers and railway officers throughout the country.

A report of the special meeting of the Association of American Railroads held in Chicago on July 28 to deal with the freight car situation appears elsewhere in this issue.—Editor

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railway operation and shipper co-operation could enable the railways—with their equipment and other facilities in the condition they were after the long depression—to handle the vastly increased traffic that they did handle. As nobody can foresee any more accurately now how much the war in which we are now involved will demoralize and increase traffic, the only safe policy for both railways and shippers to pursue is to prepare for the worst that may possibly occur. And with the transportation problem what it plainly has become, railways and shippers certainly should not be handicapped by government railway policies as they were during World War II.

One plain cause of the present car shortage is decline in the efficiency with which cars are being used. The average number of miles moved by each car daily increased from 31.7 in 1939 to 49.3 in the war year 1944, and then declined to 39.3 in 1949, and to 39 in the first third of 1950. Net tons per loaded car increased from 26.9 in 1939 to 32.7 in 1944, and declined to 31.4 in 1949 and to 30.9 in the first third of 1950. In consequence average net ton-miles per car per day—in other words, the amount of service rendered by each car—increased from 531 in 1939 to 1058 in 1944, and declined to 788 in 1949, or more than 25 per cent, and to only 778 in the first third of 1950. This decline in the service rendered by each car has been equivalent to a large decline in the number of cars.

There have been various causes of this decline in car efficiency; and they will be hard to remedy. Probably the most important has been reduction in the hours of work of the employees of both railways and shippers, owing to which fewer hours of work a week are being done than formerly in moving cars and in loading and unloading them. However, that does not explain the decline in average loading per car.

Probably the railways have been delinquent in not buying more cars; but they can explain and defend their delinquency by a government policy which, in the prosperous years since the war, has deprived them of the net operating income and credit essential to adequate buying of both equipment and materials. And they can further defend themselves by proving by the incontrovertible facts, given in an editorial in *Railway Age* of July 1 entitled "The Railways' 'Great Adventure'" that since the war they have spent *more than twice as much in proportion to their earnings* for equipment and materials used in both improvements and maintenance than they ever spent before.

More Income Needed

The railways' need for an increase in net operating income to enable them to do adequate buying is much more acute than when we entered World War II, and government policy should aid them in getting it. And government policy certainly will *not* aid them in this if, by continuance of present unequal regulation and subsidies to railway competitors, it deprives the railways of profitable traffic and keeps their rates unduly low on the vast bulk of the traffic that experience in World War II proved that only the railroads can be relied upon to handle. And *government itself will sabotage the war effort* if, as in World War II, it prevents the railways from buying all the equipment and materials that such earnings and credit as they may have will enable them to buy.

Early in World War II persons high in government started urging the railways to buy a great deal of equipment, and even proposing that the government itself should buy and lease equipment to the railways. But as soon as these government bureaucrats saw that the railways were doing much better in handling the traffic than the bureaucrats had expected, the bureaucrats began imposing restrictions on needed railway buying and even prevented acquisition of equipment that had been ordered and completion of some the construction of which had been actually begun!

No doubt, as in World War II, we will soon have a lot of government "experts," who do not know a railway from a hole in the ground, telling what the railways should do and what should be done *for* and *to* them. But what actually occurred during World War II proved that these government "experts" were so wrong in every instance as to indicate that they were trying to sabotage the railways rather than to help them. And as the nation, and apparently the government, is now infested on every hand with Communists and fellow-travelers who desire the United States to lose any war in which it may become involved, the government had better take the advice about transportation of shippers, railway officers and others who are *known* to know something about transportation, rather than that of "experts" who may actually be Reds.

Two Kinds of Sabotage

Anyone inclined to doubt that the nation and its government are now infested with Communists and fellow-travelers, who will do their utmost to sabotage the railways and every industry and agency contributing to our war effort, should frighten himself into some intelligence and sense by reading the book "Faceless Men, the Communist Conspiracy in U.S.A." by Louis Budenz. The author of this book, for years Communist leader and editor of the Communist "Daily Worker," proves beyond all peradventure the existence throughout the nation of a Communist conspiracy to aid *from within* our Communist enemies without to overthrow the government of this country by sabotage, force and violence.

However, the railways, unlike other industries, are more likely to be seriously sabotaged by their own government than by Communists or other avowed enemies of the nation. The railways were sabotaged by our own government during World War II when it prevented them from getting equipment and materials that they needed then to keep railway properties in good condition; and to that sabotage by government then is due their present unsatisfactory condition, in spite of all that has been spent in the post-war years for new equipment and other improvements. And the government has continued sabotaging them in the post-war years by its policies of (1) unequal regulation, (2) subsidization of their competitors, and (3) rate-making, to which have been due, and are still, the utter inadequacy of railway net operating income. The harm that could be done the railways and the nation by sabotage of the railways here and there by Communists and other enemies of the nation is infinitesimal compared with the harm that has been done and can be done both to the railways and the nation by policies of government destructive of the earning power, the credit and the buying and spending power of an industry whose good condition, financial and physical, is indispensable to maintenance of the strength of the national economy and to successful conduct of a war.

It is all well enough for government to be issuing warnings to industries, including the railways, to guard against sabotage by enemies of the nation; but in the case of the railways it is vastly more important for the government itself to quit committing sabotage on a wholesale scale.

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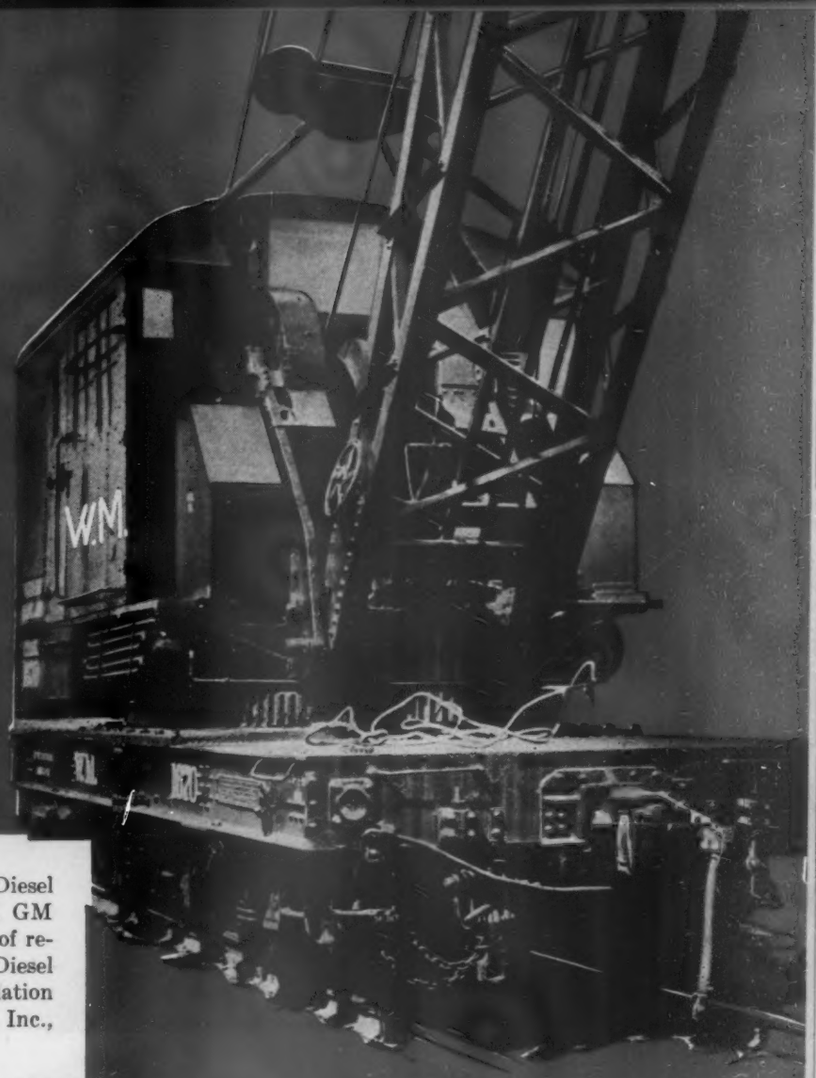

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"Deregulation" to Equalize Competition

A $500-prize proposal for freeing the railroads of some of the more onerous restrictions which hinder them in meeting competition

By CLIFFORD B. O'HARA

Recently "deregulation" has become a rallying cry of all those who are offering remedies for the current plight of the American railroads. It is being talked about by financial men, appalled at the state of the railroad securities market. It is the subject of newspaper editorials. It is being urged daily by rail spokesmen in speeches and writings. The traffic vice-president of a large eastern railroad recently suggested to a shippers group that practically all regulation of railroads be discarded. When he asked his shipper audience if any of them did not have alternate forms of transportation available to them, there were no answers.

Actually the problem of deregulation is not as simple as this, and many of these same shippers undoubtedly came to the same conclusion after reflection. Complete abandonment of railroad regulation as represented by the Interstate Commerce Act is out of the question and not desirable for shippers or even for the rail carriers themselves. The mere existence of highway, water and air competition does not guarantee that some of the evils which brought on the enactment of the Interstate Commerce Act in 1887 would not again crop up. However, there are features of present-day regulation which can be eliminated or modified without damage to the interests of the shippers of the country or those of the public at large. These changes would put the rail carriers in a much more advantageous position to meet competition from other forms of transportation.

When considering deregulation the question immediately presents itself: what is practicable and has some chance of success? Certainly, any general change in present law which leaves open even a remote possibility

Each member of the New York Railroad Club will receive a reprint of this article. It is being published in *Railway Age* at the suggestion of President Perry M. Shoemaker of the New York Railroad Club, in order to achieve earlier and wider distribution than would be possible if it were held for the next regular issue of the club's Official Proceedings.

of putting existing motor and water carriers out of business will obviously not be "swallowed" by Congress. These competitive carriers are usually "small business" with strong local ties. Therefore all changes suggested must necessarily be designed to *equalize* competition rather than to place the railroads at a competitive advantage.

To Achieve Competitive Equality

The suggestions which follow are submitted with the end in mind of achieving this equality. None of them, with the exception of the last, will require very substantial change in the present statutes, and it is felt that all are feasible as immediate goals in a campaign to secure some deregulation.

Suggestion 1: That the suspension by the Interstate Commerce Commission of proposed rates (covered by section 15 of the act) be no longer allowed insofar as reductions are concerned, and that requirements for 30 days' notice for publication of reductions in tariffs be reduced to ten days.

In 1910 the Mann-Elkins Act was passed, and one of the provisions was the so-called "investigation and suspension" procedure now contained in section 15 of the act. Under this legislation it was possible for the commission to "stay" the operation of proposed rates pending investigation as to their lawfulness. The purpose of this was to protect shippers from unannounced increases in rates. Considering the competitive situation of the time it was undoubtedly a desirable provision. It has now become a device for the motor and water carriers to delay and block adjustments in rail freight rates which have been designed to meet competitive trans-

This article was awarded the first prize of $500 in the Roy V. Wright Memorial Essay Contest recently conducted by the New York Railroad Club—the judges being Chairman R. E. Woodruff of the Erie, President E. T. Moore of the Central of New Jersey, and President C. A. Major of the Lehigh Valley.

Mr. O'Hara is 32 years old and lives at Cos Cob, Conn.

Clifford B. O'Hara

He was graduated from Princeton University with an A.B. in economics in 1939 and worked in the freight traffic department of the Pennsylvania Railroad from 1939 to 1948, except for two years which he spent as an officer in the Navy. Since 1948 he has been employed as an analyst in the traffic department of the Shell Oil Company at New York.

portation. The general rate increases since 1946 have placed rail rates on a higher basis than those of other carriers on certain commodities. Attempts to reduce these rates to the level of those of competitors have met with suspension requests by individual trucking and water transportation companies as well as associations or groups of these carriers. A concerted drive is being made by these carriers to prevent return of their recently gained tonnage to the rail carriers, and suspension has been a useful weapon to them. Suspension requests have been granted in many cases, and even if the railroads' proposals are eventually justified, often a year's revenue has been lost to the rail carriers.

Suspension

In many cases the suspension has been the "straw to break the camel's back" insofar as shippers are concerned. Anxious to help the railroads but exasperated at delays in litigation, shippers are often unable to wait through the long months of the suspension period, and instead must proceed with other plans. When, as has frequently happened, these other plans include the purchase of proprietary motor or water equipment, the expenditure once made precludes the railroads from regaining the traffic. A striking example of this effect of suspension was the recent rail proposal to establish multiple-car rates on petroleum products from Salt Lake City, Utah, to Spokane, Wash., to forestall the construction of a products pipe line. The proposed rates were suspended, and after much delay a decision was handed down denying the new rates on the basis that they were "improperly related to single-car rates." The railroad then filed tariffs in what was presumed to be conformance with the commission's decision; however, these rates were again suspended. The oil company involved finally decided it had no choice but to proceed with the pipe line project, and it is now under construction. Delay due to suspension here cost the railroads thousands of cars. What is more, the pipe line construction will probably in the end cost the motor and water carrier protestants considerable tonnage.

The elimination of the suspension power where rates are being reduced will give the railroads a chance to meet promptly private and contract carrier competition, neither of which is bothered with the thirty-day publication requirement. While common-carrier trucking companies are tied to the same requirement for thirty days' notice in publishing rate changes, in actual practice the situation is not equal. While rail tariffs receive wide distribution, motor tariffs are often published by individual lines which make no distribution (other than to the I.C.C. as required) until after rates are effective. This in effect denies the railroads the privilege of requesting suspension of the truck rates.

Reduction of the 30 days to 10 on decreases in rates cannot hurt shippers except in isolated instances. While truckers and water operators will lose the privilege of delaying and "hamstringing" the railroads in their attempts to make their charges competitive, the avenue of complaint before the commission will still be open to test the reasonableness of the rates. The only difference will be that the rates will be in effect and doing the job they were designed to do—moving the traffic. As a matter of fact, by eliminating from the commission's docket the many suspension cases involving reductions, particularly those filed purely for delay, it should be possible to speed up the processing of complaint cases. This effect would certainly be beneficial to all who are involved in litigation before the commission.

Suggestion 2. That the Interstate Commerce Commission be allowed to disregard the "undue preference or prejudice" provisos of section 3 of the act where competition of other forms of transportation is involved.

Over the years many of the commodity rate structures of the country have been based on Interstate Commerce Commission decisions. These prescribed rate adjustments have been largely predicated on competitive relationships between origins, between destinations or even between commodities. The new competitors of the railroads, usually serving only a portion of the entire transportation picture, have made the old structures archaic. The carriers should no longer be required to maintain these prescribed differentials and relationships where they are meeting a clearly competitive situation.

Preference and Prejudice

Suggestion 3. That the railroads by appropriate relief from the requirements of section 3 (preference and prejudice) and section 4 (long-and-short-haul) be permitted to meet competition where it exists without breaking down rates at intermediate points not subject to the same competitive situation.

It has long been the practice of the I.C.C. to permit the railroads to do just this where water competition has been involved. It is often equally justifiable when truck competition of certain types is to be met. Rail carriers must necessarily serve all intermediate points on their routes, and rates to these points cannot exceed the rate to the destination point unless relief has been allowed by the commission. Many motor carriers, on the other hand, hold operating authorities which do not allow them to serve intermediate points. An example was cited recently of a motor carrier which applied for rights from an East Coast point to Los Angeles, serving a point in New Mexico as the only intermediate point. Inasmuch as such carriers as this (and there are many, though not on as large a scale) are allowed to restrict their operations to large traffic-producing points, the rail carriers should be free to meet this challenge. Relief from the cited portions of the act should be authorized when this situation exists. It should be remembered that the Motor Carrier Act contains nothing comparable to the long-and-short-haul clause of section 4 which applies to the railroads.

Suggestion 4. That the railroads be given greater latitude in meeting the competition of "exempt" motor and water carriers.

Part II of the Interstate Commerce Act (Motor Carrier Act) specifically excepts vehicles engaged in transportation of agricultural commodities, livestock, fish and certain other classes of freight from any regulation (other than for safety) by the Interstate Commerce Commission. The original intent of the framers of the act was to exempt the "farm to market" vehicles. However, in practice, motor vehicles are engaging in such movements as citrus fruit from Florida and Texas to the great cities of the Northeast. The railroads are often unable to ascertain the charges made by those exempt carriers, and meeting the competitive situation is difficult if not impossible. It would appear that the public interest would best be served by subjecting these carriers to regulation, requiring tariffs to be filed, and the submission of reports and other information as now required of regulated carriers. Failing in this, it would seem only reasonable to allow regulated carriers great latitude in meeting this unregulated competition. Wherever necessary, conflicting provisions of the act should be waived to allow competition on an even plane. While only exempt motor carriers have been mentioned, a

similar situation exists with water carriers, particularly insofar as bulk movements are concerned.

This principle should be equally applicable where private carriage is the competition to be met. High rates and the unfair transportation tax have driven many shippers to operating their own equipment over the tax-supported highways and waterways. If the railroads are to survive as common carriers, they must be allowed to meet this competition without delay. They must also be allowed to forestall it where it is a real threat.

Suggestion 5. The Cummins Amendment (section 20) should be modified so as more freely to allow the carriers to quote rates based on a released valuation, or to quote rates based on "owner's risk."

At present all "released value" rates must be approved specifically by the Interstate Commerce Commission. The problem of loss and damage payments has become so pressing in the postwar period that it seems desirable that the carriers be allowed to quote rates based on a released value to a much greater extent than previously. Simple tariff publication of such rates should meet the requirements of present day shipping, as long as full actual value rates are continued in effect. Given a choice of a high and low rate, shippers will often accept the limited carrier liability that goes with the lower rate.

In Great Britain a preponderance of rail tonnage moves at "owner's risk." Many rates are quoted two ways. "Company risk" and "owner's risk." The system has been found beneficial there and it would seem desirable to give it a trial here. A modification of the law would be necessary, but the interests of shippers would be protected by giving them the alternative of full protection at a higher rate.

"Way" Freight Service

Suggestion 6. The railroads should be allowed to substitute truck for rail "way" freight service on less-carload shipments wherever it is profitable, without the necessity of litigation.

For the past few years many railroads have been engaged in the substitution of truck service for rail on unprofitable l.c.l. service to points now served by "way" freight cars. There has gradually evolved through much litigation before the commission and the courts a fairly well established procedure and in the normal course of things the railroad is granted what it seeks. However, here again the tactic of delay is costing the railroads greatly in litigation expense and lost tonnage. The commission, justly or not, has required that "key points" be established, through which a shipment must move via rail, thence via truck, or vice versa. No trucking can be conducted through more than one key point.

There seems to be no reason why the commission cannot set down rules as to proximity of key points, etc., so that substituted service can be set up by the railroads without specific authorization from the commission. Such a procedure would encourage the railroads

Suggestion 7. The American railroads should be permitted to try the "agreed" or "contract" rates now being used in Canada and England.

The other suggestions advanced in this paper do not require major changes in present regulation. A complete change in American regulatory policy, however, would be required in order to allow the railroads to make contract rates with shippers in the United States.

At present American railroads may contract only with governmental bodies to quote rates differing from tariff rates.

All other shippers must pay rates as published in tariffs, and any deviation from tariff rates is subject to severe penalty. Shippers may, of course, enter into agreed rates with contract motor and water carriers.

In Canada and England legislation was passed some years ago allowing the railroads to make "agreed rates" with shippers. Some differential under the tariff rate is allowed the shipper, in return for which the shipper agrees to handle all or a stipulated percentage of his shipments by rail. Discrimination is avoided by making it necessary for carriers to extend the same privilege to all shippers at the same location, in return for the same concession as to tonnage. The system is working in both England and Canada and has been of definite value to the railways in putting a halt to diversions to other forms of transportation, particularly truck.

Impartial Regulation Intended

The authorization of contract rates in these countries was based on the sound premise that rail transportation was necessary and should be fostered by the national government. It was recognized that the railways had to be given a method of meeting unrestrained competition, not only of other carriers but also of shippers' trucks and barges.

American transportation policy, as declared in the preamble to the Interstate Commerce Act, is opposed to the favoring of any type of carrier over another. This states (briefly): "It is declared to be the transportation policy . . . to provide for fair and impartial regulation of all modes of transportation . . . so administered as to recognize and preserve the inherent advantages of each; to promote safe, adequate, economical and efficient service and foster sound economic conditions in transportation and among the several carriers . . . to the end of developing, coordinating, and preserving a national transportation system by water, highway and rail, as well as other means, adequate to meet the needs of commerce of the United States, of the Postal Service, and the national defense."

Give Agreed Rates a Try

Of course, the railroad partisans do not feel this equality exists under a situation where vast handouts under the guise of mail payments are made to air carriers, rights-of-way are provided free for motor trucks and water lines, and the government itself absorbs huge losses to operate a barge line of its own purely to provide competition for the tax-poor railroads.

Legalizing agreed rates would be a definite step towards equalization of competitive conditions. It is quite possible that after a trial they would be found undesirable for the admittedly different conditions existing in this country, but it seems only fair that the carriers should be allowed to give them a try.

* * *

The practical problem of securing any considerable degree of deregulation is, of course, enormous. The recently released "Sawyer report" of the secretary of commerce shows clearly that the bureaucrats are, in their predictable way, proposing more rather than less regulation, particularly more governmental control over what the railroads may charge for their services. It will take all the ingenuity and salesmanship the railroads can muster to secure even minor modifications in the law. The public must be "sold" on the fact that deregulation is desirable and vitally necessary for the survival of the railroads in private hands in this country. In any case, regulation cannot be dispensed with in one "fell swoop," but must come gradually, in pieces. It is felt that the suggestions here advanced will be steps in the right direction.

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UNLOADED AT _____ (STATION) (DATE UNLOADED) (DATE LOADED) (CAR INITIAL AND NUMBER)

LOADED AT _____ (STATION) (LOADING LINE) (SCALE) (TELETRAM)

OVER FREIGHT

CONSIGNEE	DESTINATION	ARTICLES, CASE, BALE, ETC.	WEIGHT	SHIPPER AND ADDRESS

SHORT FREIGHT

WAYBILL FROM	NUMBER	DATE	CONSIGNEE	DESTINATION	ARTICLES SHORT	LOADER'S NUMBER

DAMAGED FREIGHT

WAYBILL FROM	NUMBER	DATE	CONSIGNEE OR DESTINATION	ARTICLES	NATURE AND CAUSE OF DAMAGE	LOADER'S NUMBER

CAPTIONS READ CLOCKWISE

Like a growing number of roads in the country, the L. & N. makes a complete "unloading record" for every car received at its freight stations, which is sent to the agent at origin point. This form is invaluable in isolating the "sorespots" in loss and damage to merchandise

The L. & N. has furnished about 800 removable bulkheads to important loading stations for speedier and more certain blocking and separation of l.c.l. carloads. The bulkheads are of telescopic construction

Yard-service employees at South Louisville get "claim prevention gospel" from Supervisor of Claim Prevention Minor

This monthly report shows the relative standing of 25 large merchandise loading stations on the L. & N. with respect to the condition of lading of cars they originated. It inspires a spirit of rivalry among the agents

EXCEPTIONS PER CAR - JUNE, 1950

Statement based on Forms 619 prepared by all L&N unloading agents on cars loaded at stations shown and received in Asst. Supt. of Transportation's Office between June 1st and 30th, 1950. Way cars and trap cars are not included in this statement. To obtain average, divide total exceptions by total cars.

STATIONS LOADING	NO. CARS REPORTED	NO. CARS O.K.	CARS O.K.	NO. OF EXCEPTIONS O.	S.	D.	TOTAL	AVERAGE EXCEPTION PER CAR June 1950	June 1949	Prev. Month	6 Mo. 1950
"A"-ville	58	53	91%	1	2	2	5	0.086	0.05	0.03	0.05
"B"-ville	225	208	92%	9	7	4	20	0.09	0.11	0.122	0.09
"C"-ville	73	66	90%	3	1	5	9	0.12	0.225	0.09	0.18

in Three Years

Careful record of unloadings, system-wide competition, close operating department control contributed to the achievement

The average number of "overs, shorts and damaged" exceptions noted per local car of less-carload merchandise loaded at stations on the Louisville & Nashville in June, 1950, shows a reduction of 83 per cent, compared with the same month three years ago—namely, 0.44 exceptions per car loaded (exclusive of trap and ferry cars) this year, compared with 1.96 exceptions in 1947. This improvement in the safe movement of l.c.l. traffic between stations on line, and progress toward carrying out the road's slogan "Keynote Service Without Loss or Damage," is attributed by the management chiefly to (1) a planned program of claims prevention administered directly by the operating department; (2) promotion of rivalry among the stations for a reputation for a good loading record; (3) preparation and matching of records to indicate clearly the source and nature of loss and damage; and (4) physical tools to aid station forces attain good, damage-free stowage.

Since November, 1947, claims *prevention* personnel on the L. & N. have been on the payroll of the operating department, whereas previously they had been under the control of the law department. Six regional field supervisors (who make their respective headquarters at six of the railroad's eight divisional offices) report to a chief supervisor at Louisville, Ky., who, in turn, is under the jurisdiction of an assistant to the superintendent of transportation who specializes in the movement of l.c.l. in general. The field men also work directly with the division superintendents in their territories in policing freight stations for the correction of poor billing, rough platform handling and inefficient stowage, and in training train-service and yard personnel to render safe movement en-route.

The foundation of the prevention campaign is the preparation by some 400 stations on line of an "unloading record" for each car of l.c.l. received, a sample of which is reproduced herewith. Prepared in triplicate, the copies are distributed as follows: (1) original to agent at station where car was loaded, including off-line points; (2) duplicate to assistant superintendent of transportation; and (3) last copy retained in unloading agent's file.

Copy (1) enables the agent at loading point to discover, in short order, any cases of persistent and chronic failures in loading, so that corrective action can be taken. Exchange of detailed information, as a routine matter, between sending and receiving ends of the journey makes possible the quick isolation and surgical treatment of the trouble zones, rather than vague ineffective gropings toward a better claims record.

The L. & N. receives about 2,000 cars a month in this category loaded off line. Copy (1) has been used increasingly by other roads toward clearing up poor loading of overhead cars, the damage and loss on which must be shared, in most cases, by all participating roads.

Copy (2) is used by the assistant superintendent of transportation for the compilation of his monthly report which shows, for each of 24 important loading stations on the L. & N., the facts with regard to the condition of merchandise cars as noted at destination. The fragmentary example here reproduced shows how for each station there is set forth the number of exceptions per car, with annual and cumulative comparisons of "average exceptions per car."

T. D. Williams, assistant superintendent of transportation, who originated the monthly report, asserts that listing, in this manner, of the standing of each station with regard to exceptions noted is a powerful factor in influencing more careful attention to preventative cures for o. s. & d.'s. "The big stations now live in a goldfish bowl—just within the family, you understand—but, nevertheless, standing on record." With the list of station averages distributed to each of the 25 stations concerned, plus key operating officers, there is sent out a general statement by Mr. Williams on improvement or retrogression on the system as a whole, and calling attention to good practices which have paid off. In a bulletin selected at random there appeared, for example, the admonition:

Don't load merchandise freight:
in fiber boxes on uneven surfaces
in fiber boxes under wooden cases
in fiber boxes on chime of barrel
in packages among rough and heavy articles.

Copy (2) of the individual car o. s. & d. report is also used by the assistant superintendent of transportation to analyze individual commodities and routings and to prepare lists for matching "overs" with "shorts."

Tools for Better Stowage

The L. & N.'s significant improvement in cutting down exceptions notations on merchandise freight is due also to the rapid extension of tools and knowledge to aid station forces in loading cars scientifically. As noted in *Railway Age's* 1950 round-up of stations in the country equipped to handle unit loads, at least 13 of the L. & N.'s major stations operate power-driven platform trucks, which have proved an important tool for cutting down astrays by permitting larger loads to be moved and reducing damage by more exact control of movement. Further mechanization is being considered.

Some 800 removable bulkheads have been furnished to 20 important loading stations for speedier and more certain blocking and separation of l.c.l. carloads. Being of telescopic construction, the oak bulkheads fit easily a wide range of car widths. The entire lot is operated as a pool, and destination stations are equipped with routine instructions for removal from cars and return to "home" station direct, or via intermediate stations in payload service.

The road's field supervisors not only police all stations for handling of merchandise, but inspect and instruct all classes of employees having to do with readying or movement of cars in the safe transit of carload freight as well, and work closely with the L. & N.'s shippers and receivers in tracking down and eradicating "bugs" in the loading and unloading of carload shipments.

The overall result of the L. & N.'s prevention program is indicated by the fact that claims filed with the road in the first five months of 1950 declined 50 per cent in number and 51 per cent in dollar amount, compared with 1947. This improvement was not due in important measure to a falling off in traffic—total freight revenues of the L. & N. declined only 5.8 per cent in 1949, compared with 1947, and much of this decrease was due to strikes which cut off the shipment of coal, the road's biggest cargo, and a negligible consideration in freight claims.

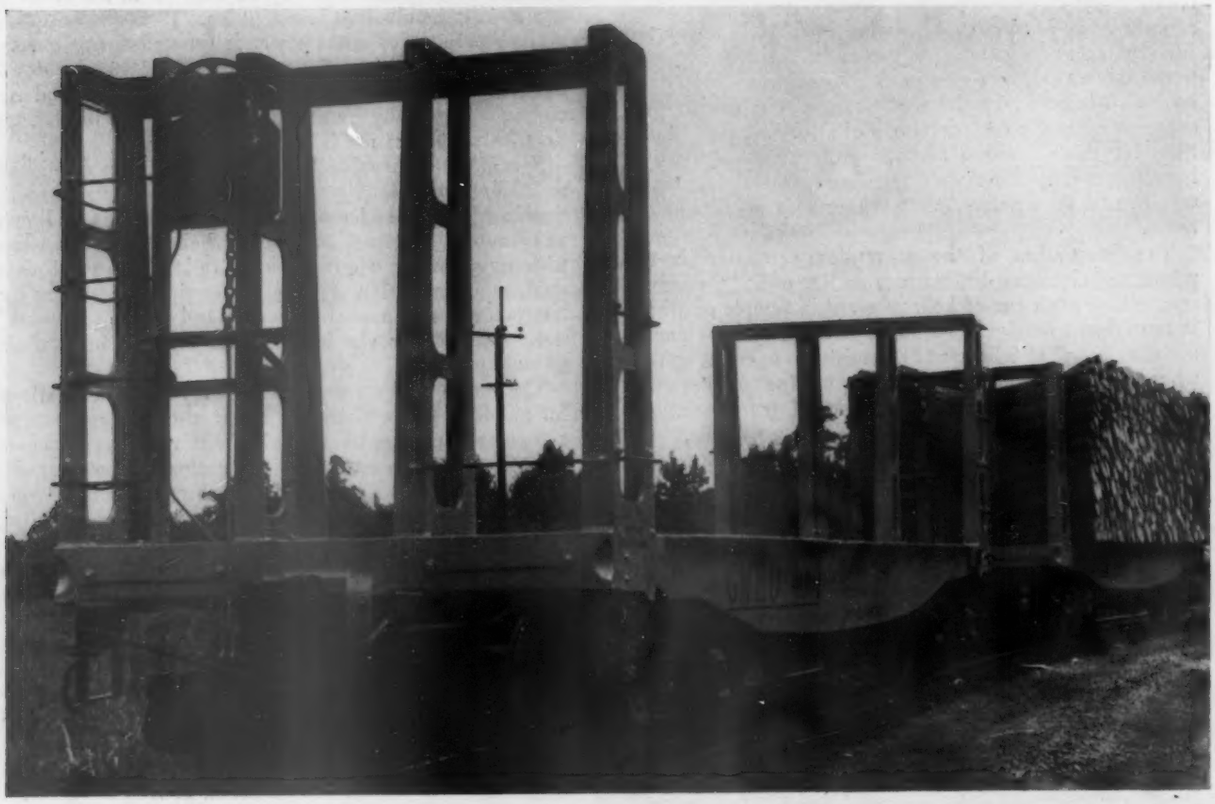
The Old and New in Pulpwood Cars

Two new G.M. & O. cars shown at Mobile are the first of an order for 100 to be built at company shops

Two pulpwood cars of new type, first of 100 now being built in the Meridian, Miss., shops of the Gulf, Mobile & Ohio, were exhibited on June 8 to members of the Southwestern Technical Committee of the American Pulpwood Association at Mobile, Ala., where the design attracted much favorable comment. The cars are of 50-ton nominal capacity and can carry 22 cords of pulpwood more safely and with greater ease of loading and unloading than could the older cars, the latter being generally limited to 13 or possibly 15 cords in a single load.

Wood-pulp logs were formerly hauled on improvised cars, converted from other types of equipment, but the rapid growth of the industry in the gulf states has necessitated the development of a more specialized piece of equipment. The G. M. & O. car is the result and represents cooperative efforts of the railroad (under the direc-

Left—Older-type conventional pulpwood car under load. Below—New design with capacity to load 22 cords of pulpwood



tion of C. M. House, general superintendent of motive power and car equipment), pulp mills in the territory and the General Steel Castings Corporation.

The new car offers many improvements over conventional pulpwood equipment, including a cast-steel underframe and end construction without bracing, for increased capacity and minimum maintenance; a sloped and slatted floor so that loose bark will be removed en route; provision for mechanical unloading; and a low side-deck height to facilitate loading from trucks in the field.

The absence of any diagonal bracing in end construction of the new design also helps greatly both in loading and unloading. It is estimated that the cost of these operations will be reduced at least 60 per cent. The ends of the car were left open after careful deliberation. There is some thought that difficulties may be encountered with grapples catching on the open ends, but the majority of pulpwood men feel that it will be an asset to this car for machine and crane operators to be able to see the position of all of the wood when they are loading or unloading close to the cast-steel ends.

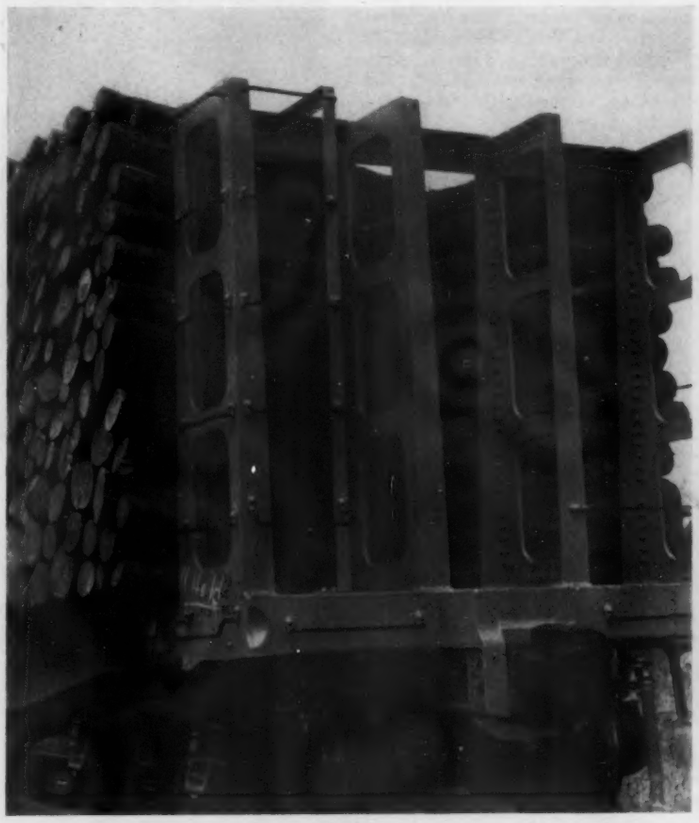
The first cars being built will have slatted floors with openings of about 2½ in. between the slats, which are composed of ¼ in. steel plates about 6 in. wide, welded in place. Many pulpwood men doubt that these slats will last long because they anticipate that the tips of bucket-type grapples may break or bend the strips. The G. M. & O. recognizes this possibility but thinks that this type of floor should be given a fair trial because if it does stand up the car floors will be automatically freed of bark. It stresses the fact that if the slatted floor proves more of a liability than an asset, solid floors may be installed.

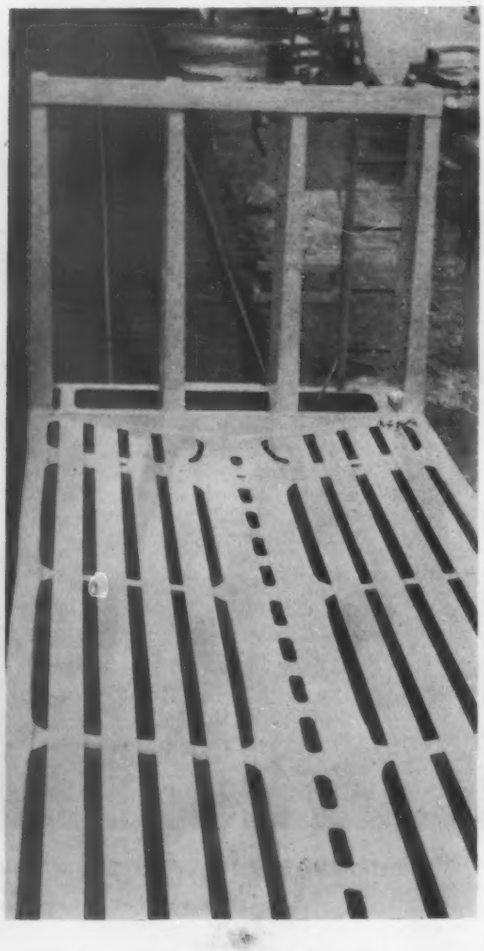
The new car weighs 42,100 lb. light, thus giving it a load capacity of 126,900 lb. It is estimated that a full load of 22 cords of pulpwood weighs about 121,000 lb. The car has the following principal dimensions: length overall, 43 ft. 3½ in.; inside length, 38 ft. 3 in.; loading height at ends, 7 ft.; floor height above rail; 4 ft. ⅛ in. (at sides), 3 ft. 6⅛ in. (at center); width over side sills 8 ft. 8 in.

In assembling the cars at Meridian shops, a crew of 14 men is employed to produce one car every two days, or 16 hours of working time. The biggest job is welding the slatted floors and applying the cast steel ends to the underframe, also by welding.

Equipment applied to the cars includes used trucks, AB brakes, couplers, draft gears, etc., from dismantled G. M. & O. cars, which reduces the expenditure chargeable to capital account. The one-piece cast-steel underframe and cast-steel upright car ends, supplied by General Steel Castings Corporation, are designed so that the ends fit pockets in the car underframe and are locked and welded in place without using any rivets. The underframe is also designed for use of the Standard Railway Equipment Company's coupler-centering device. The trucks are equipped with snubbers furnished by the Chicago Railway Equipment Company. Friction draft gears are Miner and Cardwell-Westinghouse types; hand brakes, Ajax and Universal types; angle cock holders, Western Railway type.

Below—A fully loaded car showing interlocking and welded cast-steel end and underframe construction. Right—The floor of the pulpwood car is sloped and slatted to be self cleaning





John doesn't "push" here any more . . .

Remember the famous song that went:

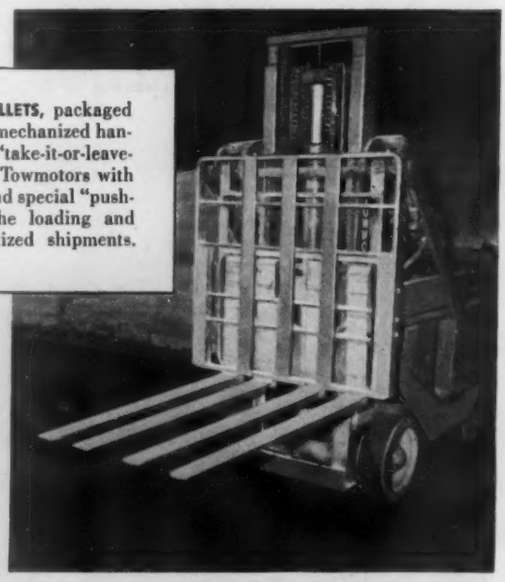
Where do you work-a, John?
On the Delaware-Lackawan.
What do you do-a, John?
Oh I push, I push, I push.

Today, if you asked John what he does, he'd tell you that he doesn't do much pushing any more. Machines now handle the transfer of packaged freight between lighter or boxcar and covered docks on the Lackawanna — faster, much more efficiently and with far greater safety for shipments.

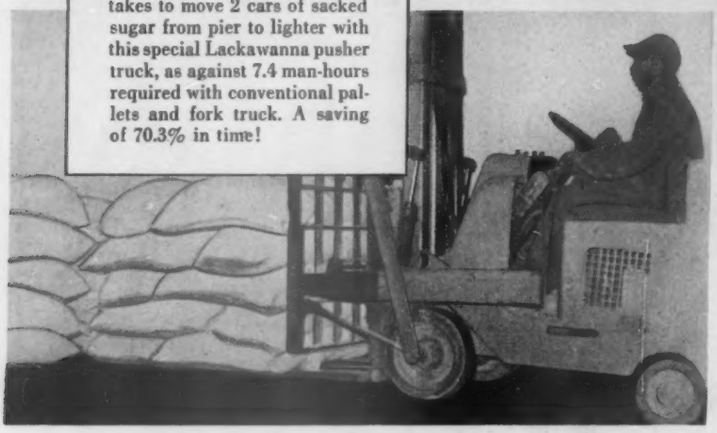
For example, average tons of packaged freight handled per man-hour at the Hoboken Terminal has been increased 44% in three years — thanks to the ingenious "take-it-or-leave-it" pallet and fork-truck pusher device developed by the Lackawanna.

Whether it's packaged freight, perishables or heavy machinery, modern Lackawanna efficiency adds up to preferred handling for your shipments. That's why so many of the world's great shippers specify Lackawanna — to or through New York.

SHIPPED WITHOUT PALLETS, packaged freight still gets fast, mechanized handling on Lackawanna "take-it-or-leave-it" pallets. A fleet of Towmotors with 4 broad, flat prongs and special "pusher" device speeds the loading and stacking of unpalletized shipments.

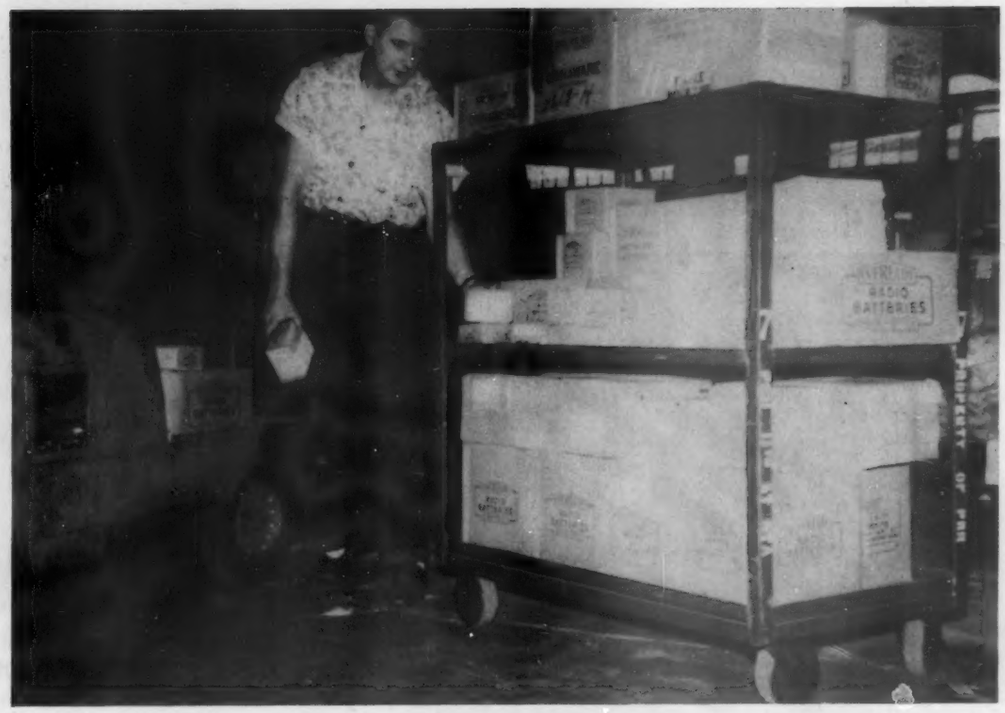


JUST 2 MAN-HOURS is all it takes to move 2 cars of sacked sugar from pier to lighter with this special Lackawanna pusher truck, as against 7.4 man-hours required with conventional pallets and fork truck. A saving of 70.3% in time!



Lackawanna Railroad

SHIPPERS WHO ARE IN THE KNOW, CHOOSE THE ROUTE OF PHOEBE SNOW



Trucker places small shipment on second deck of truck at Pittsburgh (Pa.) 11th Street station

Better Protection For Small Shipments

Pennsylvania develops a small truck for storage of small l.c.l. packages—Draymen can find shipments more easily, eliminating delays in delivery

Better protection against loss and damage to small shipments of l.c.l. freight is now being given by the Pennsylvania. This is being done through the medium of a small, caster-mounted two- or three-decked truck on which these shipments are stored while waiting for the pick-up and delivery trucker to take them to destination or for the patron to call for them.

In most freight stations, the practice is to zone the platform according to the requirements of the truckmen who handle the delivery service. Freight for the territory designated by the drayman is placed in each of these zones. Sometimes, small packages placed on the platform may be covered up with larger freight, with the result that there is some damage or temporary loss. The latter condition means at the least that draymen are delayed in getting on the streets, and it may mean that delivery may be held up for some time.

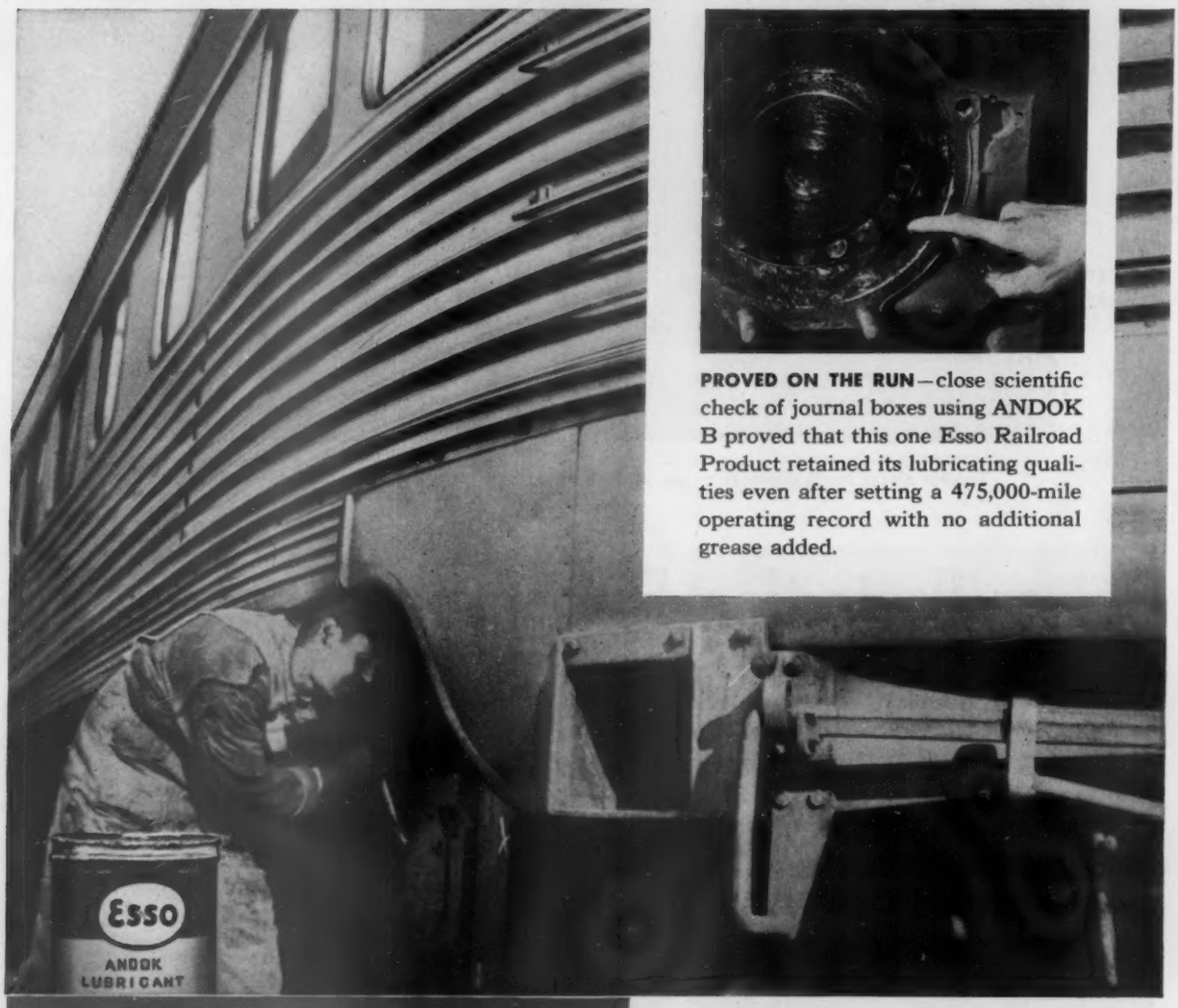
To decrease the amount of loss and damage of this nature to small shipments the Pennsylvania has made effective use of small multiple-decked trucks. Several different sizes have been used experimentally, as a result of which the Pennsylvania has come up with a recommended size, viz.—overall height, 59¾ in.; width, 36½ in.; length, 72 in.; and clearance between decks, 23 in.

Drayman has bills upon which notations show that specific shipments have been put on the truck. It is easy for him to find pieces of freight for his load

Mile after mile

ANDOK LUBRICANTS—made especially for railroad use and triple-proved for trouble-free bearing lubrication in Diesel locomotives and passenger cars under millions of miles of tough railroad operating conditions.

PROVED ON THE RUN—close scientific check of journal boxes using ANDOK B proved that this one Esso Railroad Product retained its lubricating qualities even after setting a 475,000-mile operating record with no additional grease added.



The Sign of QUALITY — ESSO — The Symbol of SERVICE

RAILROAD PRODUCTS

SOLD IN: Maine, N. H., Vt., Mass., R. I., Conn., N. Y., N. J., Penna., Del., Md., D. C., Va., W. Va., N. C., S. C., Tenn., Ark., La.

ESSO STANDARD OIL COMPANY—Boston, Mass.—New York, N. Y.—Elizabeth, N. J.—Philadelphia, Pa.—Baltimore, Md.—Richmond, Va.—Charleston, W. Va.—Charlotte, N. C.—Columbia, S. C.—Memphis, Tenn.—Little Rock, Ark.—New Orleans, La.

PROVED IN THE LAB—constant follow-ups by Esso scientists and technicians in America's largest petroleum laboratories make doubly sure that you always get quality and dependability with products that bear the Esso Brand.

PROVED ON THE JOB—you get assured satisfaction when you use Esso Railroad Products. Esso Sales Engineers make sure that Esso Products are giving you dependable performance. For any railroad fuel or lubricating problem be sure to call on ESSO.

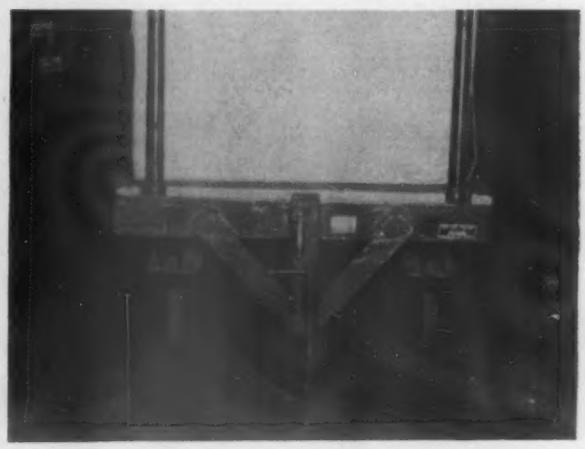
Freighthouse Operation Speeded With Under-Floor Chain Conveyor

Acme Fast Freight installation at Jacksonville cuts handling time—Part of warehouse palletized—Portable conveyors also used

In April, 1949, Acme Fast Freight moved into a new freighthouse (leased from the Seaboard Air Line) at Jacksonville, Fla., in order to cut the cost of its operations and give better service to its patrons. The new freighthouse (300 ft. long by 60 ft. wide) is of modern concrete construction and features as its primary handling equipment an under-floor chain conveyor for towing four-wheeled live skids on a "merry-go-round." This equipment, coupled with a fork-lift truck, several hand trucks for odd-size shipments and some portable gravity-wheel conveyors, makes it possible for Acme to get most of its freight unloaded from cars and on the streets by 8:00 a.m. every morning. (Cars to be unloaded are placed before 4:00 a.m., when work starts.) Jacksonville freight, therefore, usually is delivered on the same day that it arrives in that city, while transfer freight to points south of Jacksonville is turned over to railroads in time to make outbound connections the same afternoon.

One of the factors—in addition to the conveyor—which makes possible the fast unloading, thus enabling Acme to get the freight to consignees at such an early hour, is the fact that the bills are available far ahead of the freight. (They are air-mailed to Jacksonville by the origin station.) Thus each car is manifested (the evening prior to the arrival of the cars) before car doors are opened, and the checker knows to which city zone each piece of freight must go. This early arrival of bills means that cars seldom cannot be unloaded immediately upon arrival.

Generally speaking, in the unloading operation (this is an entirely inbound operation at Jacksonville), skids are taken to the cars and the freight is loaded on them. (At the same time checkers chalk mark each package with the number of the city zone to which the freight is destined.) Once skids are loaded they are shuttled the very short distance to the conveyor line. At the conveyor line the "pin" (see illustration) is dropped into the trough in which the conveyor runs. A catch on the conveyor chain makes contact with the pin and the skid is towed along, at a rate which may be varied between 75 and 90 ft. per min. As the skids reach areas of the house which have been designated as storage areas for freight going to various zones of the city, shipments are removed from the skids. (Sometimes the freight is floored and at others it may go directly to a delivery truck.) Large shipments destined to one consignee are palletized and stored or moved directly to trucks as circumstances may dictate. Small shipments generally move to the delivery trucks from storage areas over gravity conveyors. The conveyor is an extremely flexible instrument for this type of work, which is, essentially, an l.c.l. operation. Although the conveyor chain runs below floor level, there are no jams due to clogging with waste material or dust, for the conveyor is self-cleaning. The under-floor conveyor also is considered a very safe type of equipment to operate. Acme has similar installations at Miami, Fla., and Tampa.



This close-up shows the pin in the trough. The pin is lifted from the "dog" on the conveyor chain to disengage it

DIESELS ARE IMPORTANT
IN RAILROAD OPERATION

SO ARE RECORDS OF WHAT THESE DIESELS
ARE DOING AND HOW THEY ARE HANDLED

BARCO RECORDERS

PROTECT YOUR DIESELS
GET MAXIMUM RETURNS

BARCO RECORDERS GIVE YOU A COMPLETE,
ACCURATE RECORD OF OPERATION AND PERFORMANCE

- *Speed*
- *Time*
- *Mileage*
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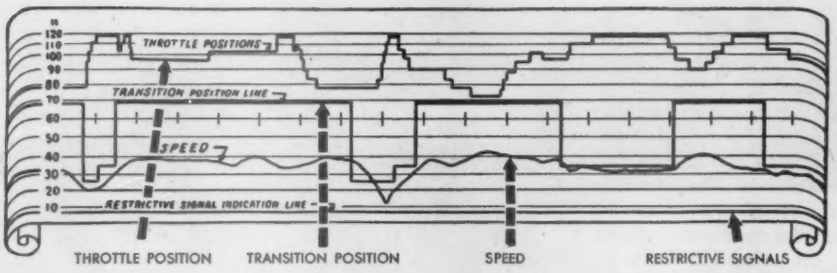
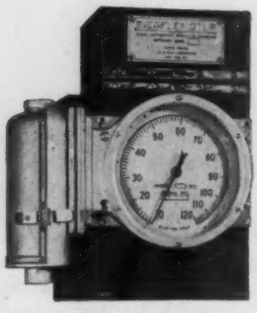
- *Throttle Position*
- *Reverse Lever Position*
- *Manual Transition*
- *Dynamic Braking*
- *Overspeed*
- *Forestalling for Automatic Train Stops*
- *Slippage*





BARCO RECORDERS FOR DIESEL AND STEAM PASSENGER,
FREIGHT AND SWITCH ENGINES

BARCO MANUFACTURING CO.

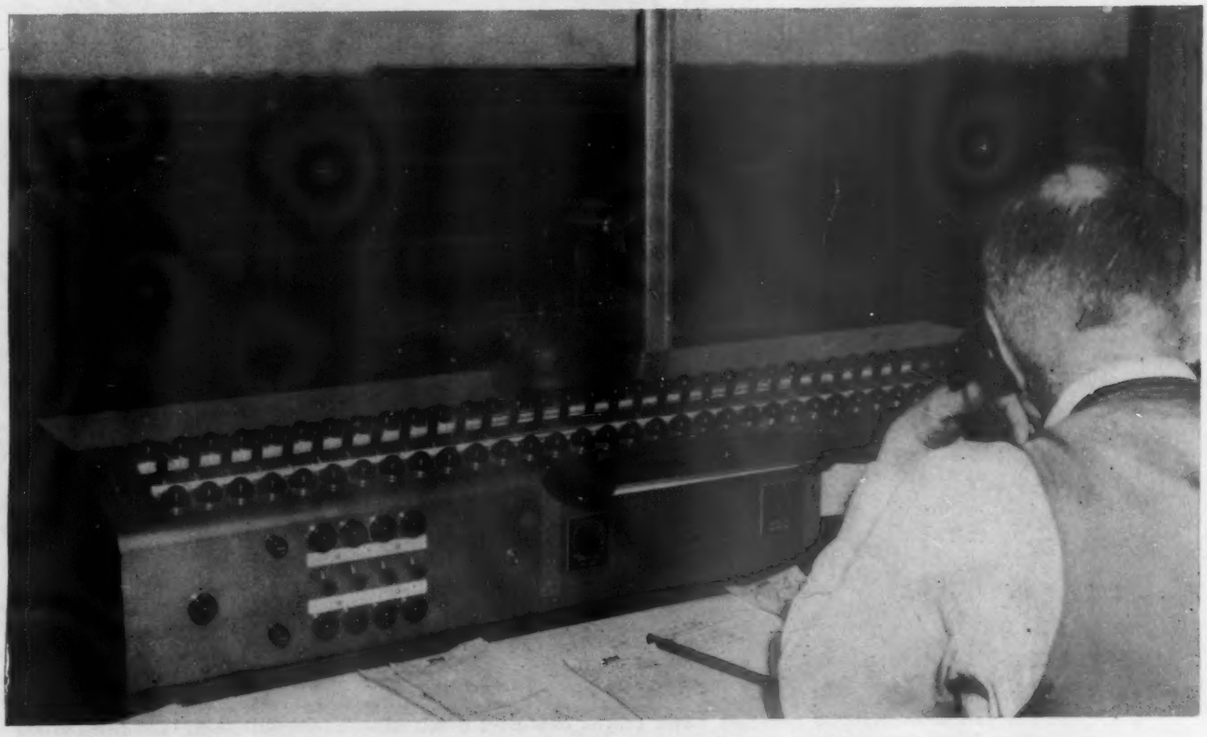
1800 I. WINNEMAC AVE., CHICAGO 40, ILL.

FREE ENTERPRISE — THE CORNERSTONE OF AMERICAN PROSPERITY

Supervision over the operation of the yard is centered in the office of the assistant general yardmaster at the top of this tower

New "Saucer" Yard Improves Operations

St. Louis-San Francisco facility at Springfield, Mo., cuts costs and makes possible the more complete blocking of trains made up there



A console on the desk in the tower office is the nerve center of the communications network

Important benefits are being realized by both the railroad and its shippers as the result of the completion by the St. Louis-San Francisco of a new freight classification yard at Springfield, Mo. The greater efficiency of the new yard as compared with the obsolete facilities replaced—coupled with centering switching work at Springfield that was formerly performed at other points under less advantageous conditions—is producing substantial savings in operating costs for the railroad. Shippers are benefited because less overall time is required to classify cars, resulting in generally better service and earlier deliveries.

The new yard is a "saucer"-type facility, permitting switching moves to be carried on simultaneously from both ends, and incorporates every modern aid for efficient operation, including tracks of ample length, communications, an elevated control tower and floodlighting. New supporting facilities include a four-track yard for making light repairs to cars, and an icing dock. All these new facilities are part of a $5,000,000 improvement project at Springfield which included the construction of a large Diesel servicing and repair shop and layout and a terminal office building.*

Operating Hub of the System

The main lines of the Frisco system radiate in four directions from Springfield—northeast to St. Louis; north to Kansas City; west to Monett, Mo., and thence to Wichita, Kan., Fort Smith, Ark., Tulsa, Okla., Oklahoma City and Enid, and points in Texas; and southeast to Memphis, Tenn., Birmingham, Ala., and Mobile, and Pensacola, Fla. About 12 through freight trains arrive at Springfield in each 24-hour period. These trains include approximately 1,500 incoming cars and the same number of outbound cars daily. Of the inbound cars, about 200 are delivered to local freighthouses, industries, stockyards, etc., and about the same number are picked up from these sources and brought to the yard to be included in departing trains.

Before the new yard was built switching work at Springfield was done principally at North yard, which was originally built in the early 1870's and enlarged in 1899 and 1902. This yard had 18 tracks ranging in length from 45 to 65 cars. Because of its obsolete layout and relatively short tracks, switching in North yard was not an efficient procedure. Incoming trains not only frequently had to be "doubled" into the yard, but switching work had to be stopped whenever trains pulled into or out of it. These inadequacies were magnified when the advent of Diesel locomotives brought about the operation of longer trains. One result was that, because of interruptions, switch engines operating at North yard averaged less than four hours of work in each trick.

Because of the shortcomings of North yard only incomplete switching of cars at Springfield was possible. Considerable reshuffling of trains made up at Springfield was required, therefore, at other points on the system. With the new yard in operation freight trains made up at Springfield are being "blocked" to a much greater degree than before, with the result that the amount of switching required at some other points has been greatly reduced.

New Yard Has Long Tracks

The new yard, comprising a total of 30.6 miles of trackage in 32 tracks, extends in an east-west direction. It is directly south of the Frisco's west locomotive and coach shops. There are 11 westbound and 11 eastbound classification tracks so arranged, with ladder tracks at each end, as to permit cars to be switched from both directions into each yard. The classification tracks are flanked on the north by three westbound receiving tracks, and on the south by three eastbound receiving tracks.

The maximum capacity of individual tracks in the westbound receiving yard is 158 cars, and that in the eastbound yard is 155 cars. The total capacity of the receiving tracks is 936 cars and that of the classification tracks is 1,574 cars. The capacity of individual tracks in each classification yard ranges from 52 to 94 cars.

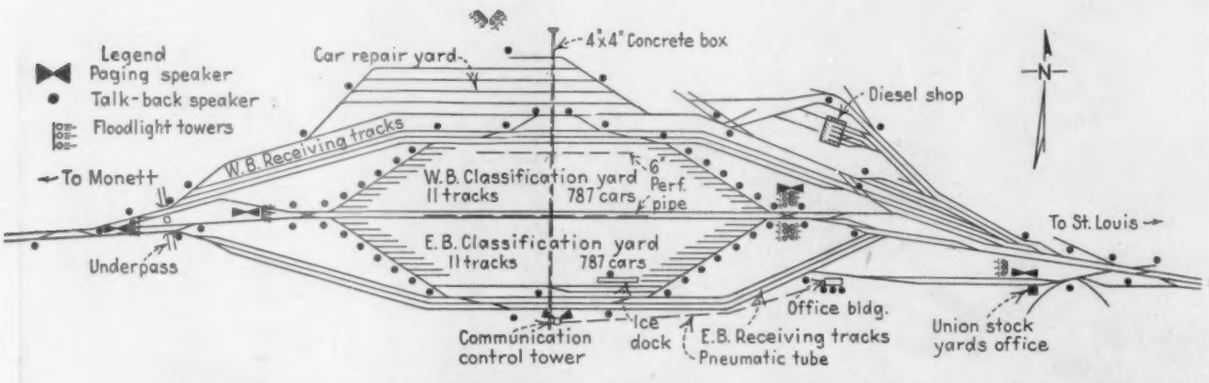
Extending the length of the yard on the north side is an engine running track, 8,900 feet long. Also, located between the eastbound receiving and classification tracks is a 2,360-ft. icing track which serves a 320-ft. high-level ice dock.

Connecting with the ladder tracks at each end of the classification yard are two drill tracks. For a distance of about 30 cars back from the end of the yard the east drill tracks descend toward the yard on a grade of 0.35 per cent, while those on the west end descend toward the yard on a grade of 0.25 per cent, the two grades being joined in the yard tracks by sweeping vertical curves. Thus, the "saucer" effect is achieved. The transverse grade of the yard is 0.5 per cent descending toward the north side.

Crossovers Add to Flexibility

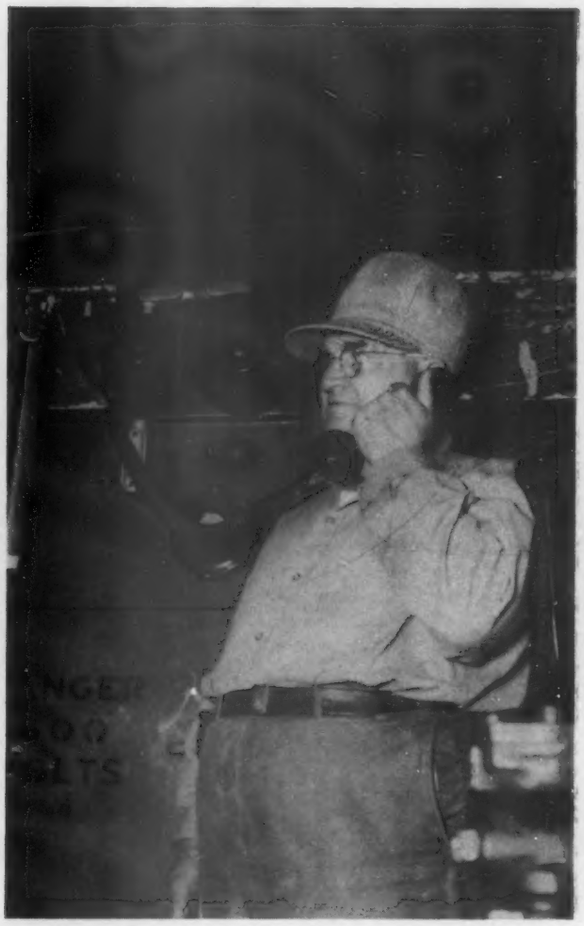
To enhance the flexibility of the yard the ladders of the classification tracks are extended across the corresponding receiving tracks by means of No. 8 crossovers,

*See *Railway Age* of July 8 for a description of the Diesel shop and related facilities and the office building.



The yard is arranged so switching moves can be conducted simultaneously from both ends. In addition to the general layout of the yard this schematic drawing shows the principal elements of the communication system

The talk-back speakers are located principally along the ladder tracks and at other points where a need for communication with engine crews is most likely to occur



Radio is also used as an aid in directing switching operations, not only in the new yard but also at outlying points in the Springfield area. This radio installation is in use on one of seven switch engines so equipped

thereby permitting the receiving tracks to be used for switching purposes. Between the two drill tracks at the east end of the yard is a 200-ton, 72-ft. Fairbanks-Morse track scale, arranged so cars from either classification yard may be weighed without interfering with the switching operations.

The body tracks of the classification and receiving yards are laid with 110-lb. or 112-lb. relay rail, while new 112-lb. rail was used for the ladders and leads. Except for a small number of secondhand ties from yard tracks that were taken up, new creosoted ties were used, fully tie-plated. The turnouts are principally No. 9s and the switchstands are of the ground-throw, low-target, safety type. The ballast is chats.

At the extreme west end of the yard a highway underpass extends under four tracks—the two drill tracks, the westbound departure lead, and the eastbound receiving lead. Extending across the yard at about the midpoint of the classification track is a 4-ft. by 4-ft. concrete box, with inlets at a number of points in the yard for surface drainage. Provision for subsurface drainage in the yard consists of two longitudinal lines of 6-in. Armco perforated corrugated pipe (with laterals), each about 700 ft. long, which discharge into the concrete box.

The new light car-repair laycut, now nearing completion, is located on the north side of the westerly half of the classification tracks. There are four tracks here with a total capacity of 125 cars. Between the tracks are concrete runways, 16.8 ft. wide, designed so their edges can be used as jacking pads at any point. The service and supply buildings for the car-repair yard, situated along its north side, will house a journal lathe; air-brake and tool rooms; lumber, paint and material storage space; an oil storage room; a waste room; a blacksmith shop; a garage for shop trucks; and wash, locker and toilet facilities for employees.

Seven 100-ft. floodlight towers are spotted at various locations in the yard to provide night illumination at strategic points, such as along the drill tracks and ladders at both ends of the classification tracks and at the car-repair layout. Each of the towers carries seven to ten 1,500-watt floodlights, and on a number of them banks of lights are placed back-to-back or at an angle with each other, depending on the area to be illuminated.

Tower Office Gives Birdseye View

Direct supervision over the operation of the yard is exercised by an assistant general yardmaster whose office is in an elevated tower on the south side of the yard about midway of the classification tracks. The tower, of structural steel, is 60 ft. high. The top 8 ft. is occupied

by the office, 14 ft. by 14 ft. in plan, which is enclosed on all four sides with Thermopane vaporproof nonglare glass. Thus, the tower affords a clear view of the entire yard area. The office has an asphalt-tile floor, a ceiling of acoustical material, is air conditioned, and is heated with electric unit heaters. The roof has wide overhanging eaves, and an outside walkway, with handrail, extends entirely around the office at the floor level. Directly beneath the office is another room which houses a toilet and rectifiers, transformers and other communication equipment.

A pneumatic tube, about 2,700 ft. long, for transmitting train consists connects the tower office with the new office building. The compressor for the tube system is in a small house of concrete blocks at the base of the tower.

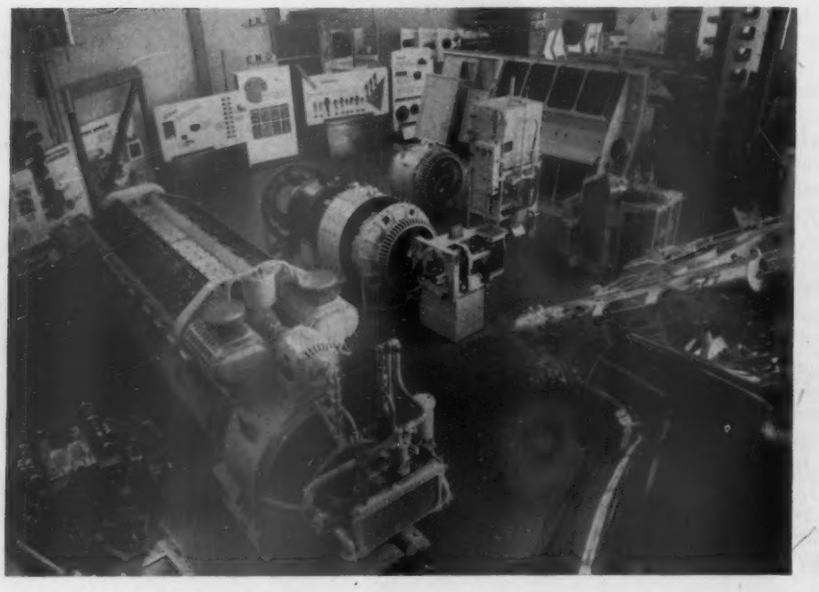
The tower office is the control center for a paging and talk-back system of communication with the crews of switch engines, which blankets the yard area. This system is comprised of 63 talk-back speakers in the yard and at other locations and 5 pairs of paging speakers. The talk-back speakers are located principally along the ladder tracks and at other points where a need for communication with engine crews is most likely to occur, such as near the entrances to the yard, at the ice dock, near the car-repair tracks, and at the stockyards. There are other talk-back speakers in the offices of the general yardmaster, the terminal superintendent and the trainmaster, and in the telegraph office.

How the System Works

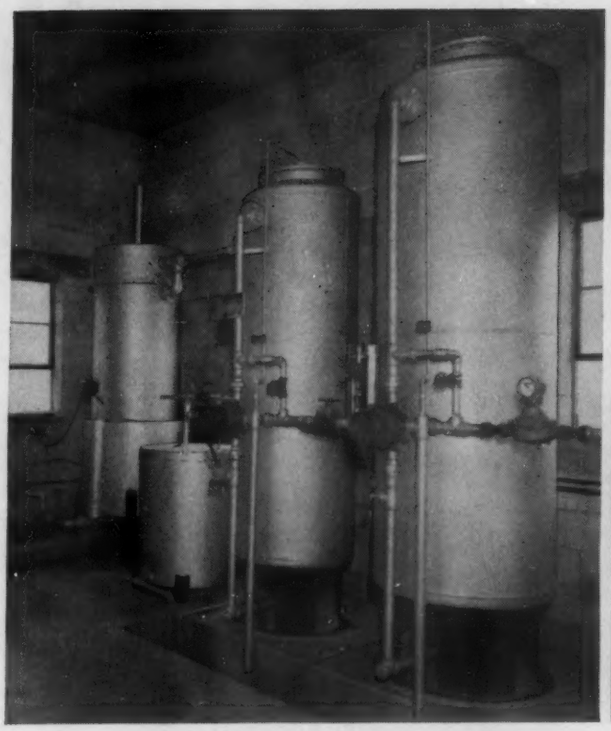
The nerve center of the communications network is a console on the desk of the assistant general yardmaster in the tower. On the panel of the console are an indicator lamp and a key switch for each of the talk-back speakers. A conversation may be initiated at any of the talk-back speakers by pushing a button on the mast of the speaker, causing the corresponding indicator lamp on the console to light. If the man in the tower wishes to talk to a particular man in the yard, and knows he is working near a certain talk-back speaker, he flips the proper key switch, presses a foot switch and calls the man's name into his microphone. If the exact whereabouts of the man in the yard is unknown he is summoned to a talk-back speaker by calling his name over one or all of the paging speakers.

Radio is also used as a means of communication, not only in the new yard but also in directing the activities of switching locomotives working at outlying points in the Springfield area. When so working switch engines are under the direction of the general yardmaster whose office is in the new office building. In addition to those in the tower and the general yardmaster's office there are other stations in the radio circuit in a yard office on the south side of the city, in another yard office on the north side and in the office of the road's telephone engineer in the general office building. The radio circuit may be used as an intercommunication system between these various offices without going out over the air. To date seven switch engines in operation at Springfield have been equipped with radio sending and receiving equipment.

The design and construction of the new yard were under the general supervision of H. B. Barry, who was chief engineer of the Frisco until his retirement on June 1. Supervision of the project was then assumed by Mr. Barry's successor, E. L. Anderson. V. R. Copp, resident engineer, was in direct charge of the construction work. More than 1,000,000 cu. yd. of grading was required, which, together with the construction of the underpass, the tower, the concrete box and certain other items, was done under contract. The trackwork was performed by company forces. The communication system was also planned and installed by company personnel working under the general direction of R. W. Troth, superintendent of communications and signals, and under the direct supervision of R. M. Laurenson, communications engineer.



SOME OF THE FEATURES of General Motors' new permanent exhibit at its LaGrange, Ill., Diesel locomotive plant. The opening of the exhibit on June 13 was reported in the *Railway Age* of June 17, page 78



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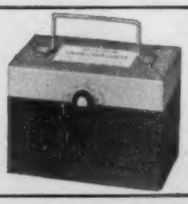

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When it's an Exide . . . *YOU START*

The streamlined "Empire Builder" averages 47.3 m.p.h. for its 1,766-mile run over the G.N. from St. Paul to Seattle. No. 2, eastbound, is shown in the Montana Rockies, one of two mountain ranges which it traverses

The Great in Great Northern

To two factors, perhaps, the Great Northern's enviable position among the Class I railroads today is chiefly attributable. First, it was *not* overbuilt. Physical expansion followed traffic growth. Grandiose projects were not predicated on visionary volumes of traffic. Built entirely without land grants or public aid, the main line from St. Paul to Seattle was inched west with Quaker-like prudence.

Second, there has been a continued policy of "smoothing out the rough spots" in a constant striving for perfection. The advice of Great Northern founder James J. Hill, statesman among railroaders, to young Ralph Budd (then on the engineering corps of the G.N., and recently retired president of the Chicago, Burlington & Quincy) was to select each year the weakest link on the railroad, and work at it until it was "as good as the best." Adherence to this philosophy has been responsible for a partnership of better operating characteristics and improved service as a result of each important capital expenditure.

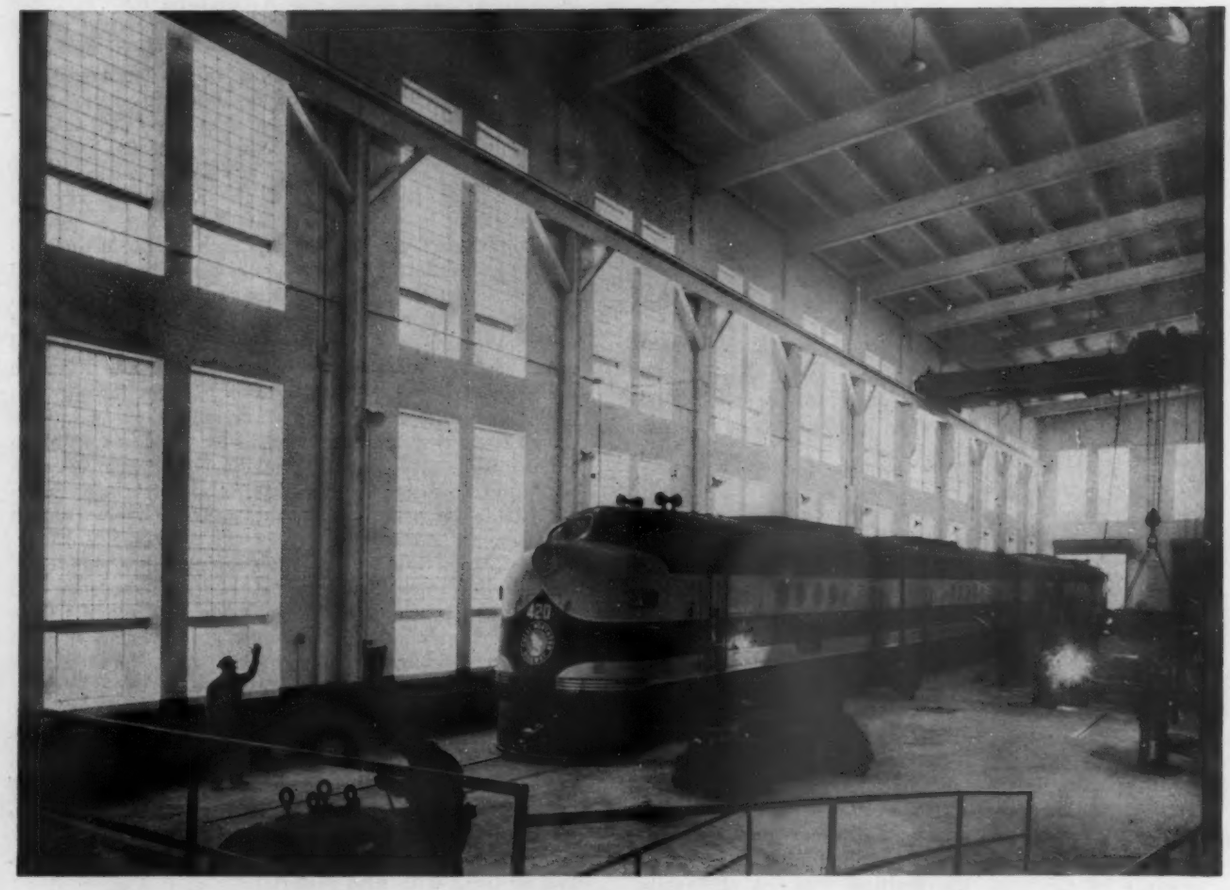
With the managerial leadership handed down from Empire Builder "Jim" Hill through his successors to F. J. Gavin, president today, the Great Northern's chief executives have carried on a policy of spending money to save money *where it would count most.* The road has weathered all economic depressions without a receivership. Since beginning operations in 1890, dividend payments on the capital stock were omitted only in the depression years of 1933 through 1936, 1938 and 1939. Payments to date total $282.50 a share, an average of nearly $5 annually for 60 years.

The improvement in the condition of the railroad and operating performance has been brought about largely by the expenditure during the past ten years of $174,848,000 for new road property and equipment. This money was all provided by the stockholders as there was a net decrease in capital stock and funded debt outstanding during the same period of over $54,600,000 and an additional $24,858,000 was spent in connection with bond retirements and new issues, including premiums paid on bonds retired and discount on bonds issued.

The Physical Plant

The Great Northern operates 8,316 miles of road, serving the territory between the Twin Cities and the head of Lake Superior on the east, and Puget Sound on the west, following close to the northern border of the United States. The main line is feathered with branches—nearly two dozen of them—reaching north toward the Canadian line. Important lines extending southward from the main line are those reaching Sioux City, Iowa, Sioux Falls, S. D., Billings, Mont., Butte and Portland, Ore. Through

No. 27, westbound "Fast Mail," pauses at Whitefish, Mont., for servicing



Modern facilities, like the Diesel shops at Havre, Mont., are provided for the Great Northern's modern motive power fleet

James J. Hill, founder of the Great Northern, has been described as a one-man agricultural and industrial development department. His efforts along those lines earned him the title of "Empire Builder." Mr. Hill is shown here at a celebration which marked the completion of the railroad to Bend, Ore., in 1911

Sioux City and Billings, as well as at St. Paul, the Great Northern connects with the Burlington, in which it shares an equal ownership with the Northern Pacific with 48.6 per cent of the capital stock. Through the Spokane, Portland & Seattle, owned 50-50 with the N.P., and its subsidiaries, the G.N. reaches Portland from Spokane, via direct lines. Its own California extension, from Bend, Ore., reaches south to a connection with the Western Pacific at Bieber, Cal.

The territory served by the Great Northern is devoted predominantly to agriculture, mining and lumbering, and the contribution of these and other industries to total carloads handled and to revenue in 1949 was as follows:

	Per Cent of Total Carloads	Per Cent of Total Freight Revenue
Products of agriculture	20.3	31.7
Products of mines	43.4	18.3
Products of forests	10.0	13.2
Manufactures and miscellaneous	23.0	30.7

Most of the products of mines, except for some lignite originating in Montana, is iron ore moving from the Mesabi Range to the Great Lakes at Superior, Wis., for transshipment across the railroad's Allouez docks. While the total rail haul is only a little over 100 miles, heavy movement boosts the ton-mileage of ore to a sizeable proportion of the road's total traffic. Speculation regarding loss of portions of this tonnage as a result of the development of import ores for eastern steel mills must take into consideration the extended life of existing Mesabi supplies which would result from reduced demands, and also current developments in progressing economically justifiable recovery of ore from the limitless supplies of Mesabi taconite.

Agricultural and forest produce moves mostly eastward along the main line, much of it originating during the grain harvest on the north-south branches which fringe the east-west route, shown on the accompanying map. While these capillary branches tend to dilute the effects of exceptionally well operated arterial lines, they are, nevertheless, required for the quantities of freight which they originate. It is largely because of the traffic originating on these feeders, and the iron ore traffic, that the Great Northern is able to originate so great a percentage of its total traffic—just a fraction under 70 per cent of all carloads in 1949.

Development Activities Fruitful

If there is any *one* thing in its history for which the G.N. stands out it is the part that, both as a railroad and as a financial force, it played in the development of the Northwest. The Great Northern did not build into a booming, populous area; rather, it boomed and populated the areas into which it advanced. In the words of one historian, where most western railroads advanced into territories which had been settled from the ox cart, the G.N. territory was settled directly from the box car.

Like most of its contemporaries, the G.N. had representatives abroad, in Europe, to encourage colonization of the newly opened lands. But also, to balance a traffic which was predominantly eastward, Mr. Hill sent traffic emissaries to Yokohama and Hong Kong to build up exports via Puget Sound, a venture in which he was highly successful. Nor did the road forget its immigrants once they were "planted"—the Great Northern aided them in increasing agricultural production. The road saw to it, for example, that there was a purebred bull in every homestead county on its lines. This is the heritage of the 1950 agricultural and mineral development department, which consists of a director and a staff of ten agents, including two geologists, and of the industrial department, which, during the past three years, has located a total of 1,110 new industries on Great Northern tracks.

Growth in terms of strategic location lasted longer on the G.N. than on most roads. The present system was not fully knit until November, 1931, when the extension was completed from Bend, Ore., southern tip of the Oregon Trunk—controlled by the subsidiary S. P. & S.—68 miles to Chemult, and 91 miles from Klamath Falls, Ore., to Beiber, Cal., connecting with a northward extension of the Western Pacific. Southern Pacific trackage is used to bridge the 75-mile gap between Chemult and Klamath Falls. In addition to opening a new route for through traffic, vast timber stands, rich agricultural areas and excellent stock country were reached by the new California extension. S. P. & S. trains handle G.N. traffic between Bend and Spokane, but the G.N. retains trackage rights which can be exercised should traffic volume make it practicable.

The Great Northern has high maintenance standards. In main-line track 115-lb. rail is used, end-hardened and controlled-cooled to obtain greater service life and reduce the cost of maintaining rail joints. Tie plates are used in all main track, including secondary lines, and over 95 per cent of all ties in track are treated. Ties 8 ft. 6 in. long and 7 in. by 9 in., laid 24 to the 39-ft. track panel, are used in all main track replacements. Washed or processed gravel ballast to a depth of not less than 12 in. under ties is provided. Recently the extensive use of crushed rock ballast was inaugurated. As part of a continuing track program, embankments have been widened, cuts ditched and tile drains installed, and unstable roadbed replaced with firm material.

The track program is carried on to an extent predicated to keep maintenance on a current basis so that

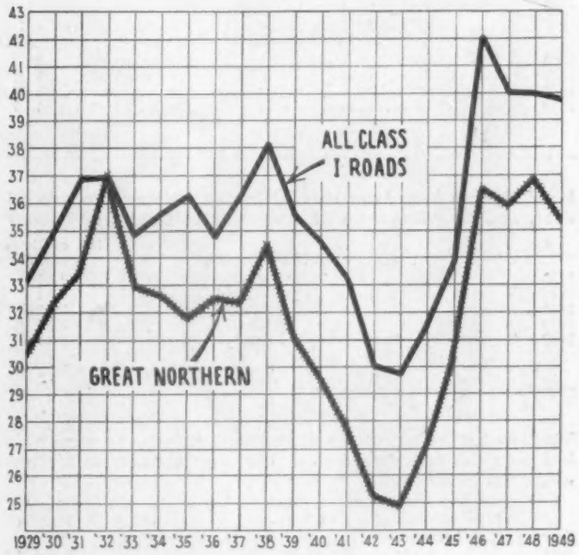
there will be no deficiency to be made up in lean years. The maintenance-of-way ratio usually runs higher than the national average. An important adverse factor in recent years has been the severity of the winters. The direct charge against "removing snow, ice and sand" in 1949 was $1.6 million, four times greater than in 1944, when the winter was mild and labor costs less.

Motive Power Progress

Modern motive power and maximum utilization has been a key factor in Great Northern's favorable operating ratios. Bigger engines have meant longer trains, fewer units on the road, and less need for extensive physical plant—fewer sidings and less open stations. Great Northern power providing the base main-line service has consistently represented the most advanced steam designs. As early as 1926, the first Diesel switcher, a 660-hp. unit, was acquired for yard service. Present ownership of Diesel switching locomotives totals 106. In 1943, the first 5,400-hp. road freight Diesel was placed in service. Road freight Diesels now number 88 locomotives, comprised of 197 units. All main-line passenger trains are now Diesel powered. When deliveries are completed on 46 locomotives—66 units—now on order, Dieselization of the railway west of Havre, Mont., will be effected, and facilities necessary to support steam operations in that area will be eliminated.

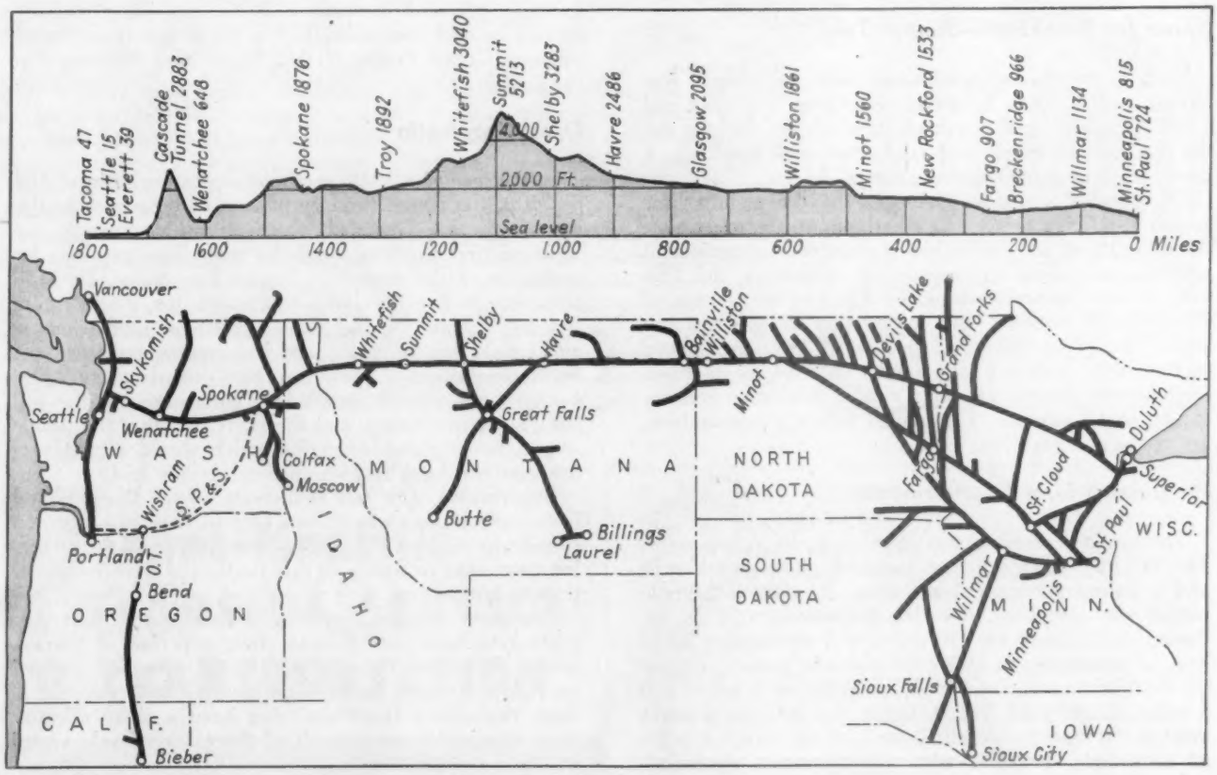
The original three-phase, 25-cycle, 6,600-volt a.c. electrification was placed in service in 1909 for a distance of 3 miles over the old Cascade Mountain line. In 1927, the electrification was converted to a single-phase 11-kv. system and, coincident with completion of the 7.8-mile Cascade tunnel in 1929, was extended from Wenatchee, Wash., to Skykomish, 73 mi., over the 2.2 per cent ruling grade eastbound. In 1947 the G.N. augmented its fleet of 18 electric locomotives with two 5,000-hp. units which, at the time of their purchase, were described as the largest single-cab locomotives ever built.

Coal-burning steam locomotives are rapidly being converted to burn oil to take advantage of low-cost residual



The Great Northern's transportation ratio runs well under the average for all Class I railroads

The Great Northern's 8,316-mile system serves 10 states and two Canadian provinces. The many north-south branches which fringe the east-west routes tend to dilute the effects of efficiently operated main lines, but their operation is necessary for the heavy traffic which they originate in competitive territory during the grain shipping season



Improvements to the main line are reflected in the performance of transcontinental schedules. The running time and average speed for passenger train No. 1 and freight train No. 401 between St. Paul, Minn., and Seattle, Wash., 1,766 miles, have been improved drastically since World War I

	Passenger Train No. 1		Freight Train No. 401	
	Schedule	m.p.h.	Schedule	m.p.h.
1920	58 hr. 45 min.	31.1	170 hr. 00 min.	10.5
1925	57 hr. 35 min.	31.7	167 hr. 35 min.	10.6
1935	49 hr. 10 min.	37.4	120 hr. 00 min.	14.7
1949	37 hr. 45 min.	47.3	106 hr. 25 min.	16.6

Fixed charges have been reduced by the retirement of funded debt, and by refinancing at more favorable rates of interest

	Fixed Charges	No. of Times Earned
1933	$19,461 260	.84
1937	16,022,964	1.63
1941	13,915,920	2.21
1945	9,936,272	3.43
1949	7,692,719	3.43

Through motive-power modernization, locomotive ownership has been cut a third, while, at the same time, total tractive effort has increased

Year	Number of Locomotives	Per Cent Diesel or Electric	Average Tractive Power	Total Tractive Power
1929	1,164	1.0	49,876	58,056,599
1935	1,041	1.5	54,093	56,310,546
1941	877	7.3	61,428	53,872,594
1947	867	18.6	69,904	60,607,163
1949	778	25.3	76,070	59,182,672

fuel oil available in G.N. territory. Seventy locomotives were authorized for conversion in 1949, and virtually all will be oil-burning by the end of 1950.

Home for Breakfast—Supper Too!

Back in the Twenties, iron ore from the Mesabi was moved to the docks in trains averaging 110 cars and 4,789 long tons, and required 16 hours 46 minutes for the trip up with empty cars and down with the loads, a transportation record for the times. In the 1930's, the G. N. adopted a slogan "home for breakfast, home for supper" applying to the crews assigned to the ore trains. As a result of an intensified maintenance-of-equipment program and close supervision of operations, the 215-mile round trip was reduced by 1944 to an average of 10 hours 33 minutes, and to 9 hours 26 minutes last year. Twenty-six million long tons of ore were moved to the docks with a pool of only 14 road locomotives. Locomotives dispose of empty cars at the range and are turned in 10 minutes. The loaded trains, pre-assembled, are ready on "yard air."

Progressive Line Improvements

The Cascade crossing was chiseled down in two steps. The original 1893 crossing involved eight switchbacks and a ruling grade of 4 per cent. In 1900 a 2.6-mile tunnel was completed, lowering the summit 677 ft., reducing the distance by 3½ miles, and eliminating 2,332 deg. of curvature. In 1929, the Cascade tunnel—longest on the continent—was bored 7.8 miles on a route still 9 miles shorter and 502 ft. lower. An additional 3,674 deg. of curvature were eliminated, along with 6.4 miles of snowsheds. Together with the concurrent electrification between Wenatchee and Skykomish, tonnages were increased from 2,400 to 5,250 per train, and running times reduced some 3½ hours. This improvement cost $25 million.

Through the Thirties and Forties many line changes were accomplished through the Cascades and Rockies, reducing grades and curvatures. The effect of these improvements might best be evidenced by the fact that the Great Northern—though it crosses two principal mountain ranges between the Great Lakes and the Pacific—has today but one helper district, from Essex, Wash., to Summit, eastbound only, over a 13.6-mile 1.8-per cent grade. The combined benefit of motive-power modernization and line changes is reflected in the percentage of freight helper engine-miles to principal engine-miles, as follows:

1949	1.1
1948	1.1
1945	1.1
1940	1.2
1935	0.9
1930	1.9
1925	3.6

Passenger Policies

Passenger, mail and express service is provided on all main and secondary lines except on the Mesabi Range and the California extension. Practically all of the branches have either passenger or mixed train service upon which many small communities are dependent, particularly in the winter months when many of the highways cannot be kept open. The "Empire Builder," streamlined in 1947, will be replaced with completely new equipment scheduled for delivery in the first half of 1951.

The earlier streamline equipment will be transferred to the "Oriental Limited" to make two daily streamlined services between Chicago, via the Burlington and the Twin Cities, and Seattle and Portland. In June, 1950, two streamline trains were placed in service between Seattle and Vancouver, B. C., providing tri-daily service in each direction, and a third was inaugurated between Grand Forks, N. D., Fargo and Minneapolis-St. Paul.

Operating Ratio

In the face of a 1949 passenger operating ratio of 164 per cent, the recent large purchases of passenger equipment have to be justified. The unfavorable ratio is due in large part to dilution of the main line earnings by operation of the numerous branch line trains. In addition, except for the 1947 equipment for the "Empire Builder," the G. N. had concentrated on motive power and freight car purchases and line improvements almost to the exclusion of passenger cars—the last big order having been placed in 1914. Maintenance on the old equipment was rising, and the G. N. felt that the public should be provided a service which would attract new business and hold that which they already had.

Experiments with fare reductions on the Puget Sound line—reductions up to 32 per cent in both one-way and round-trip coach fares—have been successful in returning patronage to trains on this route, and have increased train-mile earnings.

Seventeen former operating divisions and four districts have been consolidated—over a period of years—into 7 divisions. The new California extension created an eighth division. In addition to the direct economy of these changes, a by-product has been a more effective local supervision as a result of the enlarged role vested in single supervisors.

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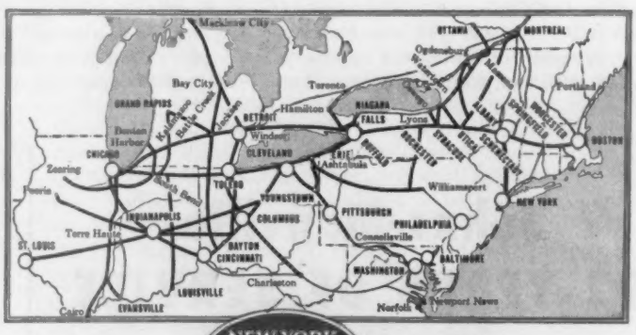
Growing! Growing! Growing! Barely four years ago, *Pacemaker* less-than-carload service began with one fast overnight run between New York and Buffalo. Now it links all cities on New York Central . . . and most smaller points, too, through closely co-ordinated high-speed freight trains and highway transportation.

For Modern Merchandisers. *Pacemaker* service is tailored to fit today's small-inventory, high-turnover merchandising. It lets you supply outlets throughout the New York Central area . . . swiftly, dependably, in any weather . . . from fewer main distribution points. That means big savings in overhead for you.

If You Distribute *Anywhere*, in this area → or throughout the nation, find out about *Pacemaker* freight. Your local freight agent will put you in touch with New York Central's nearest Freight Traffic Representative . . . who can help you take full advantage of this day-saving merchandise service. It's a *premium service* at *regular LCL rates* that include *free pick-up and delivery* at most points.



New York Central

The Smooth Water Level Route

Air-Conditioned M. U. Cars For Commuter Trains

The New York Central is now in the process of improving its suburban passenger service by the addition of 100 motor cars of completely new design

A train of the new multiple-unit cars on the New York-Harmon, N.Y., electrified section of the New York Central

he St. Louis Car Company is delivering an order of 100 85-ft. air-conditioned, multiple-unit commuter cars for the New York Central. They will be used on the road's electric lines operating out of Grand Central Terminal in New York City.

The cars are constructed of high-tensile, low-alloy steel and are all welded. The large number of cars in the order made it practicable for the manufacturer to develop jigs and use assembly-line methods in their construction. This insured uniformity of product and reduced cost of manufacture. Underframes, sides and roofs were prefabricated and assembled. Jigs were also used to assemble and fabricate overhead air-conditioning ducts and lighting troughs. Under-car equipment was mounted with the underframe upside down so that all this work could be done downhand, avoiding overhead operations.

The general dimensions of the cars are as follows:

Length over coupler pulling faces, ft.-in.	85 - 0
Truck centers, ft.-in.	59 - 6
Width, ft.-in.	10 - 4
Height, rail to top of roof, ft.-in.	13 - 6
Scale weight, lb.	150,000

The cars have a vestibule at each end, with operating cabs on diagonal corners. This arrangement permits double-end operation. The entire vestibule forms an enclosed cab when controls are in use. The swinging door which normally covers the controls closes the end vestibule opening and a sliding door separates the vestibule from the car body. The cars may be used in trains of two to fifteen cars.

To provide the best possible ride, General Steel Castings Corporation's four-wheel cast-steel trucks have been used. These have all-coil springs, 8-ft. wheel base, and are equipped with horizontal bolster stabilizer, vertical shock absorbers and anti-friction journal bearings. The cars are also equipped with tightlock couplers and rubber draft gear.

Since the cars are air conditioned, they have double-glazed large stationary windows, each window spanning two passenger seat spaces.

The seats are reversible and are spring upholstered and rattan covered. Each car accommodates 130 passengers, using an arrangement of three-passenger seats on one side and two-passenger seats on the other. The width of the three-passenger seats is 4 ft. 11 in., and the two-passenger seats, 3 ft. 4 in. The distance between seat centers is 2 ft. 8 in. A toilet is located at one end of each car. It is equipped with flush hopper and lavatory supplied with water from an overhead stainless-steel gravity tank. An electric water cooler is recessed into the toilet partition.

Two color schemes were chosen for interior painting. The first 50 cars will have a blue-green color combination, while the interiors of the last 50 will be done in tones of brown.

The motive-power and control equipment supplied by the General Electric Company includes four truck-mounted motors with single-reduction flexible drives between the motors and gear cases, the latter being mounted on the axles. Current is collected from the third rail by

Large double-glazed windows span two seat spaces. Seats are, respectively, 4 ft. 11 in. and 3 ft. 4 in. wide

shoes mounted on the truck equalizers, one shoe at each corner of the car.

These cars are unusual in that circuit breakers are used for the main switches for the traction-motor circuit and for lighting and control circuits wherever possible. These breakers are all of the Westinghouse Electric Corporation's DeIon type.

The cars are heated by electric heaters mounted along each side of the walls just above the floor level and also by a bank of electric heaters mounted overhead. The overhead heaters are blown by the fans which are a part of the air-conditioning evaporator unit. The air-conditioning units have a refrigerating capacity of seven tons.

Fluorescent lights provide a continuous band of light along the center of the ceiling from end to end of the car. The lamps are 40-watt, 48-in., T-12, 3,500-deg. white, instant-start, high humidity. Incandescent lamps are used in the cabs, under lowered ceilings at each end of the car body, and for headlights. The total connected heating load is 49 kw. This includes 30 kw. in floor heaters, 17 kw. in overhead units, and 2 kw. in the toilets.

A 10-hp. motor is used to drive the air-conditioning compressor, a 1-hp. motor operates the condenser fan, and a 1-hp. motor drives the evaporator blower. A 4-kw. motor-generator set supplies 75-volt auxiliary power for controls, battery charging and incandescent lamps. The motors of the motor-generator sets operate on third-rail voltage. A .38-ohm limiting resistor is used in series with the power supply to the four auxiliary motors. The battery is an Edison A4HW type, having an 8-hr. capacity of 170 amp. hr.

Alternating-current power at 110 volts is used for fluorescent lamps, water-cooler motor, cab-heater motor, and cab-defroster glass. This power is supplied by a Safety 2-kw., 60-cycle motor alternator. The total a.c. load is 1,500 watts, consisting of 1,020 watts for the fluorescent lamps, 60 watts for the cab-heater motor, 180 watts for the defroster glass, and 240 watts for the water cooler.

The defroster glass used for the operator's window is known as Electrapane. It has a coating of stannic oxide, which constitutes a conducting surface with a resistance sufficient to develop a 180-watt load at 110 volts. Without

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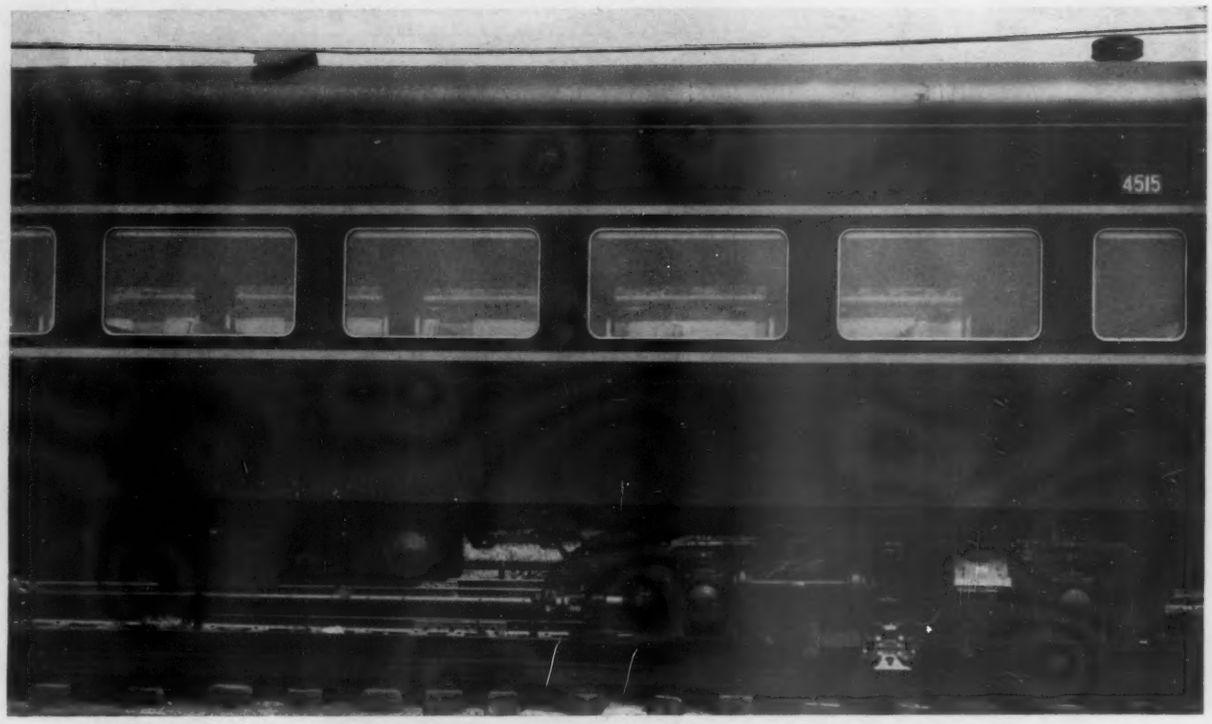
PARTIAL LIST OF MATERIALS AND EQUIPMENT ON THE 100 MULTIPLE-UNIT CARS

Truck side frames; platform center sills; etc.	General Steel Castings Corp., Granite City, Ill.
Wheels and axles	(50) Bethlehem Steel Co., Bethlehem, Pa. (50) Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
Journal bearings	(30) Hyatt Barings Div., General Motors Corp., Harrison, N. J. (15) SKF Industries, Inc., Philadelphia, Pa. (40) Timken Roller Bearing Co., Canton, Ohio (15) Waugh Equipment Co., New York
Clasp brakes	American Steel Foundries, Chicago
Air brake and signal equipment	New York Air Brake Co., New York
Brake shoes	American Brake Shoe Co., New York
Hand brakes	National Brake Co., New York
Couplers, coupler yokes, etc.	National Malleable & Steel Castings Co., Cleveland, Ohio
Draft gear	Waugh Equipment Co., New York
Shock absorbers	Houdaille-Hershey Corp., Houde Engineering Div., Buffalo, New York
Equalizers	Camden Forge Co., Camden, N. J.
Equalizer springs	Crucible Steel Co. of America, New York
Swing hangers; swing hanger bars	Kropp Forge Co., Chicago
Bolster springs	American Locomotive Co., Railway Steel Spring Div., New York
Floor, Chanarch	Morton Manufacturing Co., Chicago
Floor, composition	Tuco Products Corp., New York
Floor covering	Armstrong Cork Co., Lancaster, Pa.



Side view of one of the cars showing underframe equipment and truck with underrunning third-rail shoe. A section of the third rail may be seen in the foreground

the aid of an external heating device, it prevents frost or ice from forming on the glass.

The cab heater in the operator's cab and the Electrapane glass of the window are automatically disconnected by a door switch when the door shutting off the operator's position is closed.

All direct-current lamps are supplied from the 4-kw. control and battery-charging generator through a carbon-pile lamp regulator.

Solderless terminals are used on all No. 12 and No. 14 wire. Larger wires and cables use soldered terminals and connectors.

Vestibule floor covering	American Abrasive Metals Co., Irvington, N. J.
Sash	Adams & Westlake Co., Elkhart, Ind.
Sash retainer frames; vestibule door drop sash	Morton Manufacturing Co., Chicago
Trap doors	O. M. Edwards Co., Syracuse, N. Y.
Weather seal	Industrial Rubber Goods Co., St. Joseph, Mo.
Seats	(50) Coach & Car Equipment Co., Chicago (50) Heywood - Wakefield Co., Gardner, Mass.
Window wipers	C. A. Sprague Devices Co., Michigan City, Ind.
Window-sill capping	Westinghouse Electric Corp., Pittsburgh, Pa.
Glass—operator's windshield	Libbey-Owens-Ford Glass Co., Toledo, Ohio
Glass—sash	(50) Libbey-Owens-Ford Glass Co., Toledo, Ohio (50) Pittsburgh Plate Glass Co., Pittsburgh, Pa.
Locks	Yale & Towne Manufacturing Co., Stamford, Conn.
Luggage racks	(50) Adams & Westlake Co., Elkhart, Ind. (50) E. A. Lundy Co., New York
Doors; end door curtains	Morton Manufacturing Co., Chicago
Side window curtains	Adams & Westlake Co., Elkhart, Ind.
Door hangers	Ellcon Co., New York
Door hardware	Jas. L. Howard & Co., Hartford, Conn.
Battery	Edison Storage Battery Div., Thomas A. Edison, Inc., West Orange, N. J.
Motor-alternator and starter; carbon pile lamp regulator	Safety Car Heating & Lighting Co., New York
Circuit breakers	Westinghouse Electric Corp., Pittsburgh, Pa.
Motors and gear units; electrical propulsion and control equipment; lamps	General Electric Co., Schenectady, N. Y.
Headlight equipment	Pyle-National Co., Chicago
Light fixtures	Luminator, Inc., Chicago
Marker lights	Lovell-Dressel Co., Arlington, N. J.
Switches:	
Thermo	Fenwal, Inc., Ashland, Mass.
Dimming, transfer and vestibule light	General Electric Co., Schenectady, N. Y.
Marker light	Arrow-Hart & Hegeman Electric Co., Hartford, Conn.
Main and control	Westinghouse Electric Corp., Pittsburgh, Pa.
Terminals	Aircraft-Marine Products Co., Harrisburg, Pa.
Air-conditioning equipment	(50) Frigidaire Div., General Motors Corp., Dayton, Ohio (50) E. A. Lundy Co., New York
Air-grill filters	Air-Maze Corp., Cleveland, Ohio
Uni-Flo grills	Barber-Colman Co., Rockford, Ill.
Aerofuse outlets; Aerovane grill	E. A. Lundy Co., New York
Heating and air-conditioning temperature control equipment	(70) { Detroit Lubricator Co., Detroit, Mich. { Vapor Heating Corp., Chicago (30) Sheffler Gross Co., Philadelphia, Pa.
Cab heaters; floor heaters; electric heating banks	Railway Utility Co., Chicago
Bell cord and hooks	Jas. L. Howard & Co., Hartford, Conn.
Fire extinguishers	Buffalo Fire Appliance Corp., Dayton, Ohio
Hoppers	Dayton Manufacturing Co., Dayton, Ohio
Latches, toilet-door	Russell & Erwin Div., American Hardware Co., New Britain, Conn.
Lavatories	Crane Co., Chicago
Paint—interior	(50) Pittsburgh Plate Glass Co., Pittsburgh, Pa. (50) Sherwin-Williams Co., Cleveland, Ohio
Paint—exterior	E. I. du Pont de Nemours & Co., Wilmington, Del.
Ticket holders	Adams & Westlake Co., Chicago

PRESSED STEEL CAR

MODERN
CAR
OWNERSHIP

pays off in lower maintenance costs. Operating efficiency is a vital factor to American railroads today. Old cars cost more to keep rolling — earn nothing while in shop.

Freight traffic is at a high level today, and shippers tend to favor the most efficient road — the road with the most modern equipment.

Now is the time for each railroad, through the purchase of new custom-built or standard cars, to make a bid for its share of the traffic and to keep the freight on the rails.

Pressed Steel Car Company, Inc.
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NEW YORK 17
230 Park Ave.

PITTSBURGH
1st Nat'l Bank Bldg.

ST. LOUIS 2
314 No. Broadway

STAMINA

An Outstanding Advantage of

COMMONWEALTH

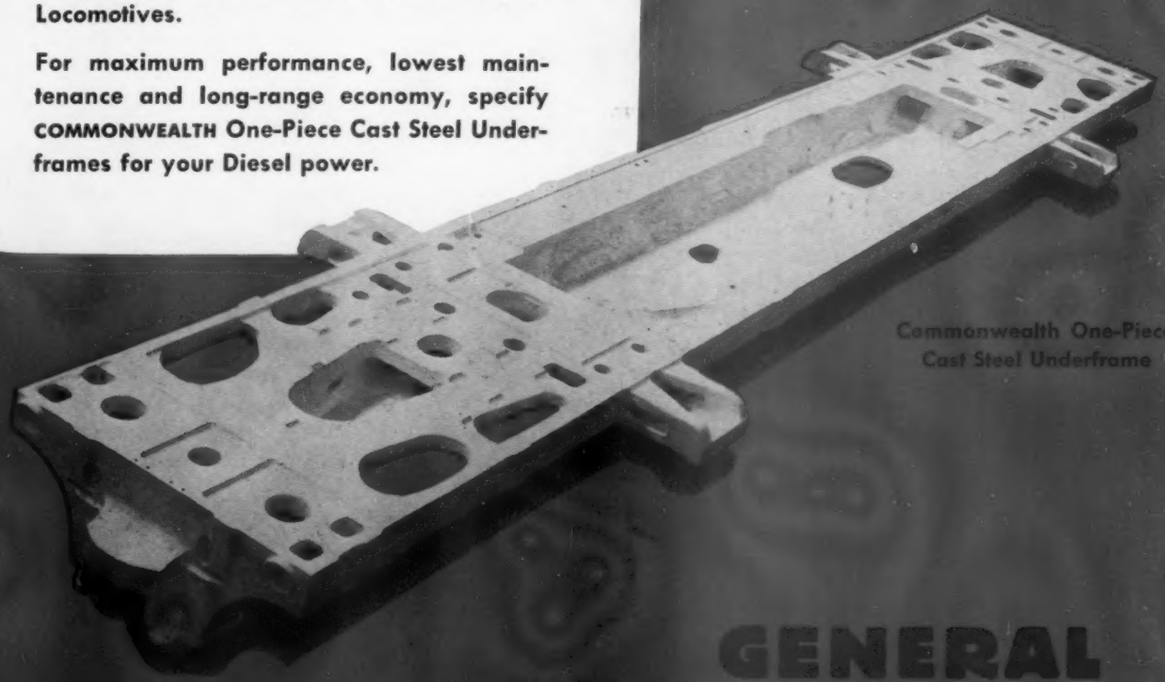
Cast Steel UNDERFRAMES FOR DIESEL LOCOMOTIVES

Rugged, one-piece cast steel construction of COMMONWEALTH Underframes provides the *stamina* so necessary to withstand the severe shocks and tough use of switching and road service. Great strength and durability are inherent.

COMMONWEALTH Underframes are furnished completely machined and ready for application, reducing construction time. Their exceptional strength prevents damage to power plant in collisions or other accidents. They are the best insurance for all types of Diesel Locomotives.

For maximum performance, lowest maintenance and long-range economy, specify COMMONWEALTH One-Piece Cast Steel Underframes for your Diesel power.

Built By Baldwin
1500 HP Diesel Road Switcher
Equipped with
Commonwealth Underframe



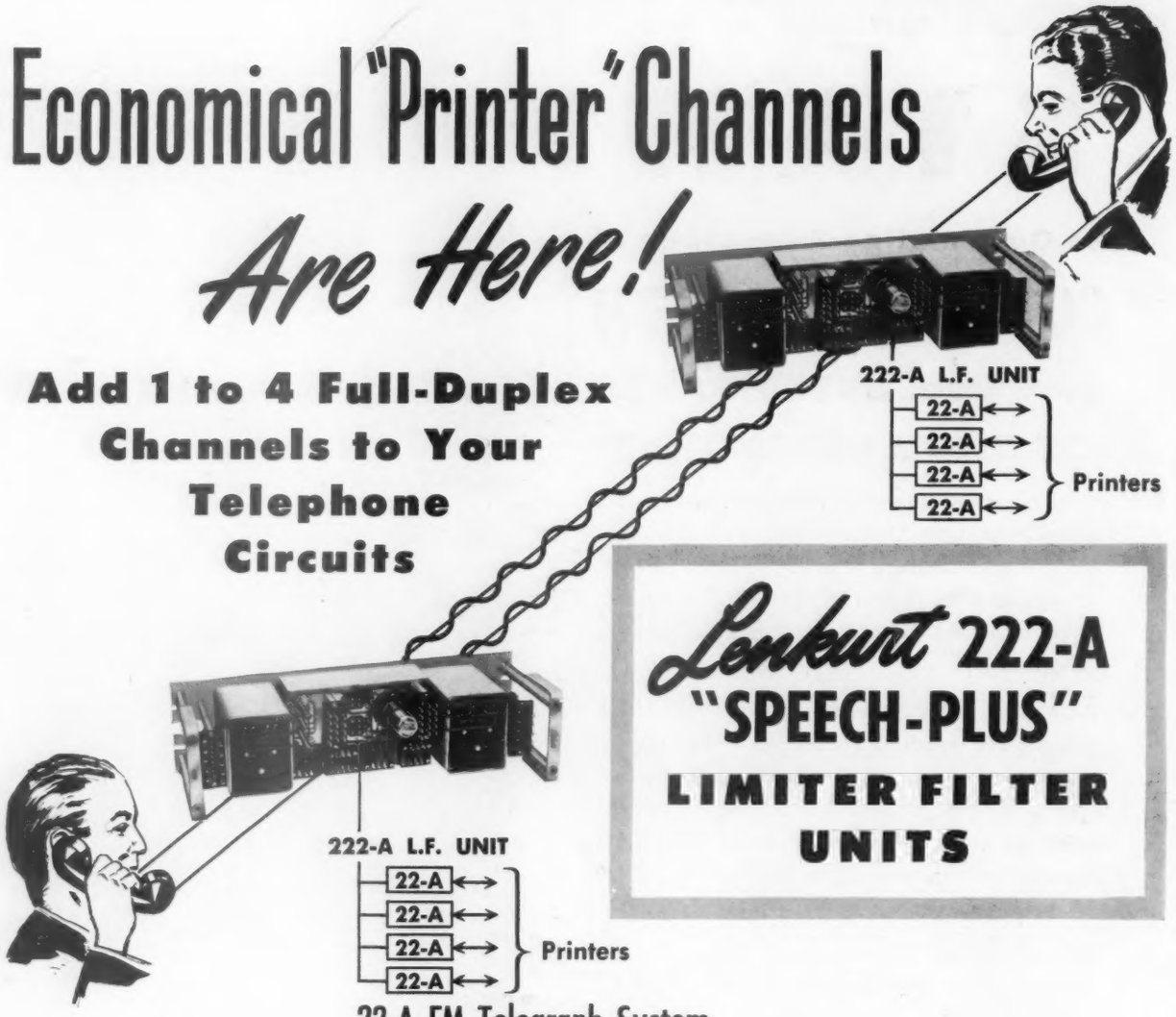
Commonwealth One-Piece
Cast Steel Underframe

GENERAL STEEL CASTINGS

GRANITE CITY, ILL. EDDYSTONE, PA.

Economical "Printer" Channels *Are Here!*

Add 1 to 4 Full-Duplex Channels to Your Telephone Circuits



Lenkurt 222-A "SPEECH-PLUS" LIMITER FILTER UNITS

22-A FM Telegraph System

Now, one to four VF carrier telegraph channels can be derived from any telephone channel —without impairing its usefulness—by utilizing Lenkurt 222A *"Speech-Plus"* Limiter Filter Units with Lenkurt Type 22-A FM Telegraph Systems.

With the 222A-1450 1950 Unit, *one or two channels* can be superimposed at frequencies of 1620 and 1740 cps, or 1625 and 1775 cps. For *three channels,* the 222A-LP2100 Unit utilizes frequencies of 2465, 2635 and 2805 cps. When up to *four* channels are needed, chose the 222A-LP2000; this unit provides channels at frequencies of 2340, 2460, 2635 and 2805 cps. The 541-LP2000 Unit permits adding *one or two* channels on a physical (or phantom) circuit.

Printer channels, thus derived, cost far less than an equivalent open wire circuit, and permit adding many channels long after all the "physical" wires are used up. For optimum performance, year in and year out, Type 22-A FM telegraph channels are substantially immune to noise, static, induction and signal level changes.

Write today for Form 22P4 which gives complete information on individual units. If you include details of your proposed applications, we'll rush complete engineering data.

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GENERAL NEWS

A. A. R. Membership Approves Net Car Supply Increase of 122,000 Units

New car production, stepped-up maintenance, and modernization must first outpace retirements

A program calling for a net increase in freight car ownership of 122,000 units within the shortest possible time has been approved by the full membership of the Association of American Railroads. This program, perhaps the most comprehensive step the railroads as a whole have taken since the rehabilitation program of 1923, was approved by the 132-line membership at a special meeting in Chicago on July 28, with virtually all members present. Plans call for the following three-fold approach to the goal:

(1) monthly production of at least 10,000 new cars both by car builders and by the railroads themselves;

(2) an extensive program of renovation and modernization of older cars in the present fleet; and

(3) immediate step-up of railroad repair programs to reduce the bad order figure from 6.5 per cent to an even 5 per cent of the present car fleet.

The ultimate goal is the net addition of approximately 69,000 box cars, 36,000 gondolas, 11,000 hoppers and 8,000 flat cars to bring the present fleet up to a new "level" of 1,850,000 cars.

Association President William T. Faricy said he hoped the 10,000 cars-a-month goal would be a reality by January, 1951, but he emphasized it would take far more than a year's production at that rate actually to bring the car fleet — presently numbering 1,727,873 units — to the final objective of 1,850,000 cars. Retirement of the obsolete and "war weary" he said, has been running close to 72,000 cars per year since 1948. But with the proposed rehabilitation program, many older cars in the present fleet will get a new lease on life, and Mr. Faricy indicated the retirement figure would drop to around 50,000 cars per year for the next two years, at least.

The national goal of 1,850,000 cars is divided by types as follows: Box cars, 775,000; gondolas, 325,000; hopper cars, 575,000; and flat cars, 55,000.

To the press, Mr. Faricy made it clear that the Chicago meeting was not a hasty move prompted by the Korean military crisis. On the contrary, growing civilian car needs, stemming in large measure from industry's five-day work week and free weekend demurrage, had made special action necessary a considerable time before the war started.

Mr. Faricy expressed full confidence that the car plan, when achieved, would permit the railroads to handle all of the nation's traffic needs in peace or all-out war. Utilization of equipment, he said, is as important as the quantity of equipment available, pointing out that much of the slack between peacetime and wartime car needs can be met, with shipper cooperation, through intensified use of each car. "We have a greater freight carrying capacity now than we did at Pearl Harbor time," he said, "but that is not grounds for complacency."

Membership in Full Accord

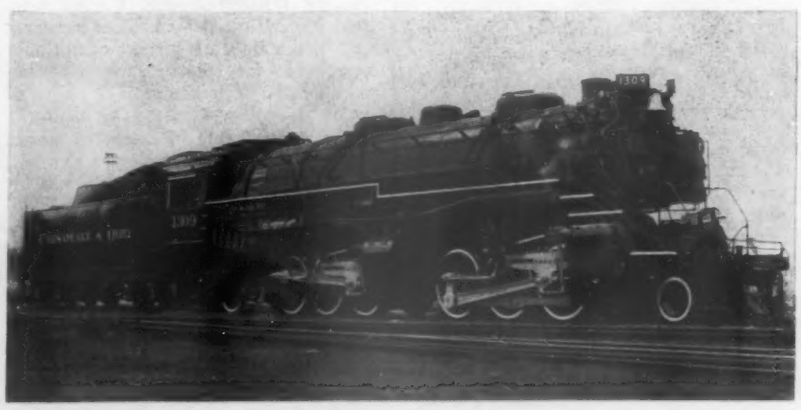
Membership approval of the car building and rehabilitation program was unanimous. Of the A.A.R.'s 132 member lines, only three or four could not take part in the meeting, and the Chesapeake & Ohio, the only Class I carrier not a full A.A.R. member, participated as an invited guest.

Although many delegates were without authority to commit their railroads to a car-purchase pledge, 63,000 cars were pledged, or reported ordered since July 1, in an on-the-spot roundup near the close of the meeting. Mr. Faricy emphasized that these pledges, coupled with 40,000 cars on order as of July 1, would not come close to a net 103,000-car addition to the fleet. For one thing, some of the new cars pledged will be cabooses and other non-revenue equipment not calculated in the goal figure. Of even more importance are the 6,000 cars currently being retired each month. This figure must be reduced, then offset, before *net* additions to the car fleet can be realized.

A shortage of steel looms as the biggest deterrent to achievement of the car program, although Mr. Faricy said he expected complete cooperation from both the car builders and the steel industry. If steel allocation becomes necessary, he said he hoped it would be on a voluntary basis. The military, he added, has pretty well learned that "you have no more of anything in a war than you can haul" and government approval of the program is expected as a matter of course.

Pledge Greater Car Use

In calculating the nation's new freight car needs, Mr. Faricy said that the railroads had had the very finest kind of cooperation from the National Industrial Traffic League and from the 13 regional shipper's advisory boards. To these groups, and to shippers in general, the railroads have pledged "to do all in their power to obtain the most efficient use of freight cars. As a part of their program to increase transportation output, the members have set as a goal a national average of 50 miles per freight car per day, or approximately the figure attained during



THIS MALLET-TYPE steam locomotive, Chesapeake & Ohio No. 1309, normally assigned to pulling long coal trains through West Virginia mountains, was slicked up to appear in the "Frontiers of Freedom" pageant at the Chicago Fair of 1950 from July 16 to 27. Year-old No. 1309, like its nine C. & O. sister locomotives of the same Baldwin-built H-6 class, measures, with its tender, just under 100 ft., weighs in for its job at 643,000 lb., and has two separate 6-wheel driving units

World War II." [The 1949 figure — which includes not only cars en route, but also those being loaded, unloaded and awaiting repairs — was 39.3 miles per day.]

"This is to be accomplished [Mr. Faricy explained] through avoiding delays in terminal or road-haul movements; through heavier loading and prompt unloading of company materials; through prompt repair of equipment, particularly where light repairs are involved; through prompt placement of embargoes, where necessary to relieve railroad congestion or reduce accumulation and delay of cars in the hands of consignees; and through close observance of car service rules as a means of avoiding unnecessary empty mileage and assuring car owners fair usage of the cars provided."

The members, in turn, urged shippers "to load and unload promptly, to furnish billing of loaded cars promptly, to load as heavily as practical based on commercial necessities; to unload cars completely so that they may be available for reloading without the delay and expense of switching to railroad cleaning tracks; and to assist in securing observance of car service rules," he said, concluding with the statement that:

"In World War II, the railroads had the splendid cooperation of the users of transportation and of an outstanding governmental agency, the Office of Defense Transportation, which, as everyone knows, did an excellent job. With this same sort of cooperation, and with an opportunity to secure the manpower and materials required for operations, maintenance, repair and such expansion of capacity as is necessary, the goal set today by the railroads can be reached."

How It Began

The "Foreword" to the railroads' program, as released this week in Washington, D. C., by Arthur H. Gass, chairman of the A.A.R.'s Car Service Division, includes figures to show how the present transportation difficulties arose. Since the end of World War II there has been a net loss in freight car ownership of 43,558 cars. In addition, since the end of the war the number of cars awaiting repairs gradually increased until on February 1 of this year it reached a peak of 140,929 cars—8.1 per cent of the total freight car ownership.

On June 1, 1950, the number of serviceable freight cars was 1,599,979, as compared to 1,701,281 serviceable cars at the end of World War II. Meanwhile, because of the five-day week in industrial and railroad operations, and the cancellation of government orders relating to use of cars, it was estimated that freight car efficiency had declined 10 per cent.

"Under these conditions the existing fleet of serviceable freight cars has been found inadequate to take care of all the requirements for rail transportation without car shortages." Noting that car demand is likely to intensify, and recognizing "that the railroads cannot successfully compete with other forms of transportation unless they have an adequate supply of vehicles to move the traffic which is offered to them" the railroads then adopted their five-point program.

Myers Group Hears Rail Executives

Transport inquiry ends after 17 weeks of hearings

"Artificial diversion" of traffic to other means of transportation as a result of government subsidies and other favoritism — not a lack of efficient and vigorous rail management — is the basic cause of today's railroad crisis. This opinion was expressed by three railroad executives last week as they testified at the final session of the Senate subcommittee's hearings on domestic land and water transportation.

The subcommittee, concluding 17 weeks of public hearings on the nation's transportation situation, heard Presidents F. G. Gurley of the Atchison, Topeka & Santa Fe; Roy B. White of the Baltimore & Ohio, and C. McD. Davis of the Atlantic Coast Line. All three classed as "absurd" a suggestion made by two witnesses for the trucking industry that nothing is wrong with the railroads that a "provident management" cannot cure.

Mr. Gurley, first of the three to testify, reviewed for the subcommittee the present-day railroad situation. He declared that government has not let free enterprise take its course in provision of transportation facilities, and that faulty regulatory and promotional policies of the federal government "have been crippling the railroads, impairing their earnings and weakening their financial position."

Hitting at government expenditures for highway, waterways, airports and airways, which "presently exceed $1 billion a year and still exhibit an increasing tendency," Mr. Gurley said these expenditures should be reexamined in the light of current conditions. As reasons for cutting such expenses he cited the following:

(1) The country is already burdened with a national debt of over $256 billion and faces new military outlays;

(2) There is reason to believe the country has a "surplus instead of a deficiency" of transport facilities;

(3) Public funds have been expended with "a partial and uneven hand" so as to provide subsidies which give an artificial competitive advantage to some carriers, and

(4) The public interest is harmed when tax collections substitute for charges for service and the public thus pays the costs which should be paid by users.

No Overall Transport Policy

Mr. Gurley discussed the need for an overall national transportation policy and commented that "we do not have it today and we have never had it." Present "disjointed and conflicting policies" give the least consideration to the nation's most vitally important agency of transportation — the railroads, he said.

The Santa Fe president then turned to a discussion of testimony which the subcommittee had received in earlier hearings from Chester G. Moore and John R. Turney. Mr. Gurley said these witnesses, who testified for the trucking industry, had presented figures "designed to support their ambitions to have the railroads turn over to the highway operators a substantial volume of business," but he added that "taking volume away from a mass transportation agency is a step in the wrong direction."

When the volume of railroad traffic is reduced, Mr. Gurley explained, "unit costs are increased because railroad unit costs decrease as volume increases, and increase as volume decreases." Subsidies to other forms of transportation help divert railroad traffic and thereby tend to hold up or push up unit costs and rates, he added. "They injure the public by depriving it of the opportunity for lower railroad rates made possible by the lower unit costs which flow from a large volume of traffic.

As to the statement by Messrs. Turney and Moore that the railroad crisis is a managerial crisis, Mr. Gurley declared that out of his observation of other types of business he had reached the "firm opinion that. . .railroad management is as efficient and vigorous as the best of American business."

Passenger-Service Problems

Continuing his presentation, Mr. Gurley discussed the "diametrically conflicting recommendations" which he said representatives of the airways and the highways have made with respect to railroads during the transportation hearings. Where one has recommended a reduction in passenger fares as the answer to the passenger deficit, another has said such a reduction would be absolutely futile, Mr. Gurley commented.

There is no one simple formula for placing unprofitable passenger service on a profitable basis, Mr. Gurley told the subcommittee. He said that Mr. Turney and Mr. Moore "appear to have figured it out to their own satisfaction that the net earnings of the railroads would be twice as great if they should discontinue their passenger, mail, express and l.c.l. freight service. Their computations show that if these services had been discontinued in 1949 the net railway operating income of the railroads would be increased from $687,000,000 to $1,353,000,000. This result is based upon the somewhat remarkable assumption that all of the expenses allocated to these services would be eliminated if the services were discontinued."

In concluding his statement, Mr. Gurley said the railroads do not seek adoption of oppressive or punitive

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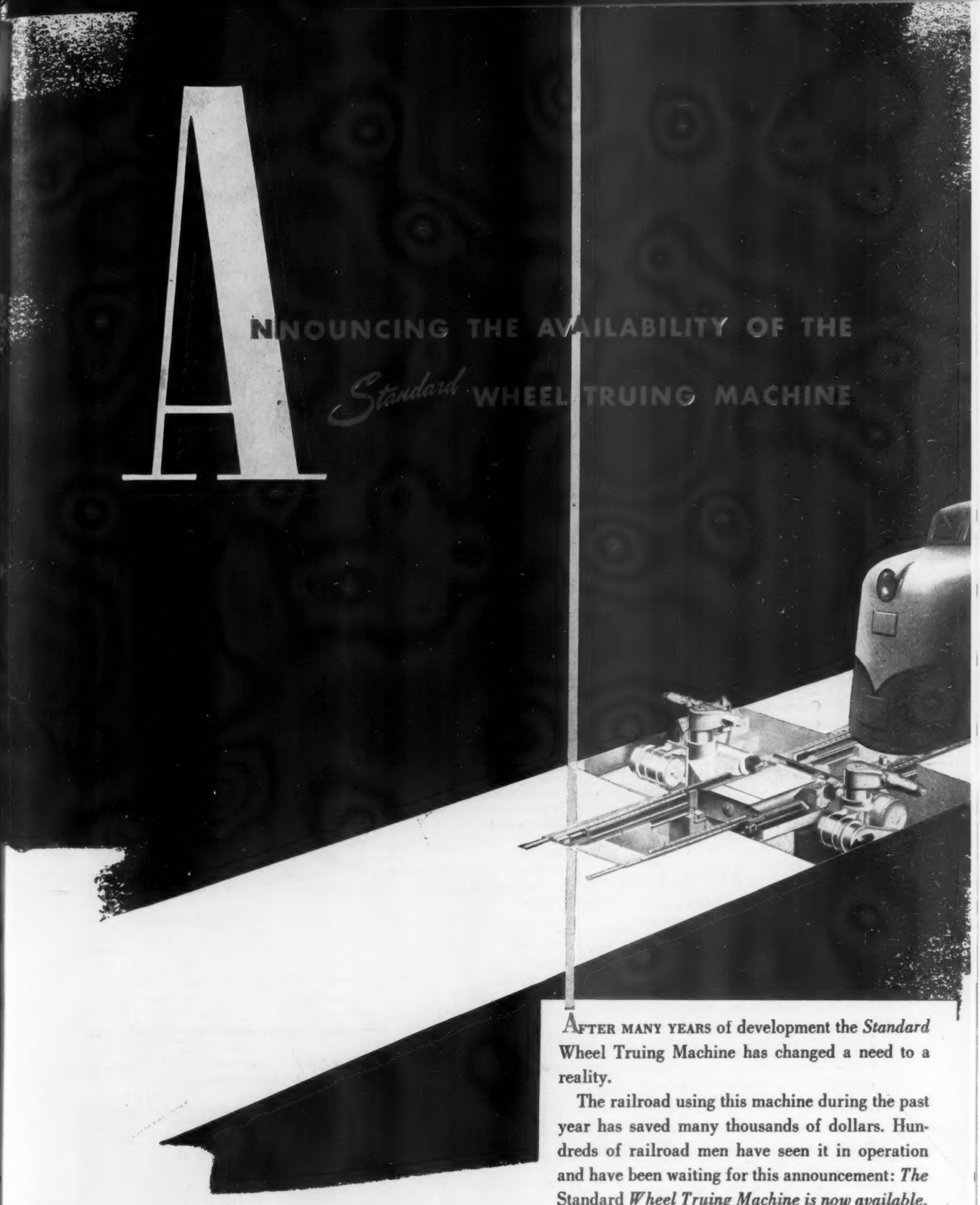
ANNOUNCING THE AVAILABILITY OF THE *Standard* WHEEL TRUING MACHINE



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The railroad using this machine during the past year has saved many thousands of dollars. Hundreds of railroad men have seen it in operation and have been waiting for this announcement: *The* Standard *Wheel Truing Machine is now available.*

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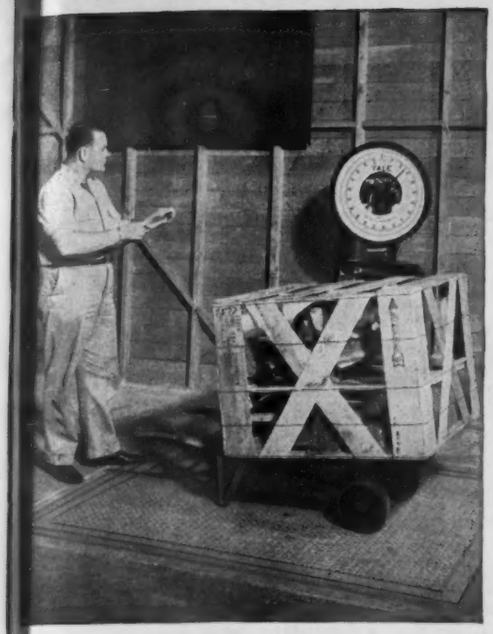

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BOX CAR SHIPMENTS TIE IN BETTER WITH MECHANIZED HANDLING.—One big shipper, the Reserve Supply Company, Minneapolis, Minn., whose entire warehouse operations are mechanized, prefers shipments by rail because their platform equipment can go right into freight cars. Where possible, they specify shipment on pallets. Truck receipts, they say, require manual unloading and placement on pallets before modern materials handling can begin

(Continued from page 54)

measures to govern competing forms of transportation. What they ask for is fair play and equality of treatment, he said, including removal of discriminatory provisions which now abound in the regulatory law, and elimination of subsidies to competing forms of transportation.

Mr. White, who followed Mr. Gurley to the stand, emphasized the contention that subsidized competition is "the heart of the railroad difficulty." He said that railroad problems of today are not created by competition, but rather by the kind of competition the roads are obliged to face.

"There is no competitive equality in the field of transportation," he declared. He then outlined four major points of his testimony for particular emphasis:

(1) Railroads are today on an unsound economic basis;

(2) The country needs good, strong railroads until such time as it can prosper and defend itself without them;

(3) The unsound economic conditions are brought on primarily by unfair competition, resulting from governmental subsidization and inequality in regulation, and

(4) The remedy is corrective legislation which Congress should enact.

Discussing railroad earnings, Mr. White said the contrast between "impoverished railroad earnings and the earnings of other industries" could hardly be sharper. Noting that the railroads earned "less than 3 per cent" in 1949 on depreciated investment, Mr. White said "any industry with such emaciated returns in a time of general business prosperity is obviously in an insecure economic condition."

Mr. White continued by stating that two world wars as well as peace times have demonstrated that railroads are the only true, all-weather, day-in-and-day-out common carriers in this country. The railroads are indispensable, "both now and for so long as can be foreseen," Mr. White said. The nation, from the standpoint of its own welfare, cannot afford economically unsound railroads, he said.

Effect of Discrimination

The B.&O. president turned next to a discussion of why the railroad industry has come to be in an unsound economic condition, and assigned as causes the lack of a "comprehensive national policy applicable to all carriers," and diversion of traffic because of governmental assistance to other types of carriers.

"In a time of expanding traffic, the railroad share is decreasing, but that of its subsidized competitors is rapidly increasing," Mr. White said. "This should be convincing proof of the adverse effect the government's discriminatory subsidy policy is having on the country's railroads."

As to the charge that railroads lack efficient management, Mr. White said that such a view betrayed "a lack of knowledge of the situation." He went on to say that he did not believe any well-informed person would contend the poor state of railroad earnings is due to inefficient management. He said the passenger deficit arises principally from state controls over passenger service and governmental mail and parcel post policies.

"The only practical remedy," Mr. White concluded, is removal of the discriminatory subsidies. "Only in that way can the country continue to have the economically sound and physically fit rail carriers which in both peace and war are indispensable."

The testimony by Mr. Davis was the final railroad presentation to be received by the subcommittee. Two other witnesses appeared before the Senate group the following day to make brief statements on motor carrier regulations, but the large volume of railroad evidence which the subcommittee began to receive last April 4 was completed with Mr. Davis' testimony.

The Coast Line president spoke primarily of his own road's problems, which he said he believed were typical of the current problems of the railroad industry as a whole. The principal need, he said, "is a sufficient margin of profit to reinvest in the railroad property to keep it in condition to render the shipping and traveling public the service it has a right to expect, and to attract the investment of new capital."

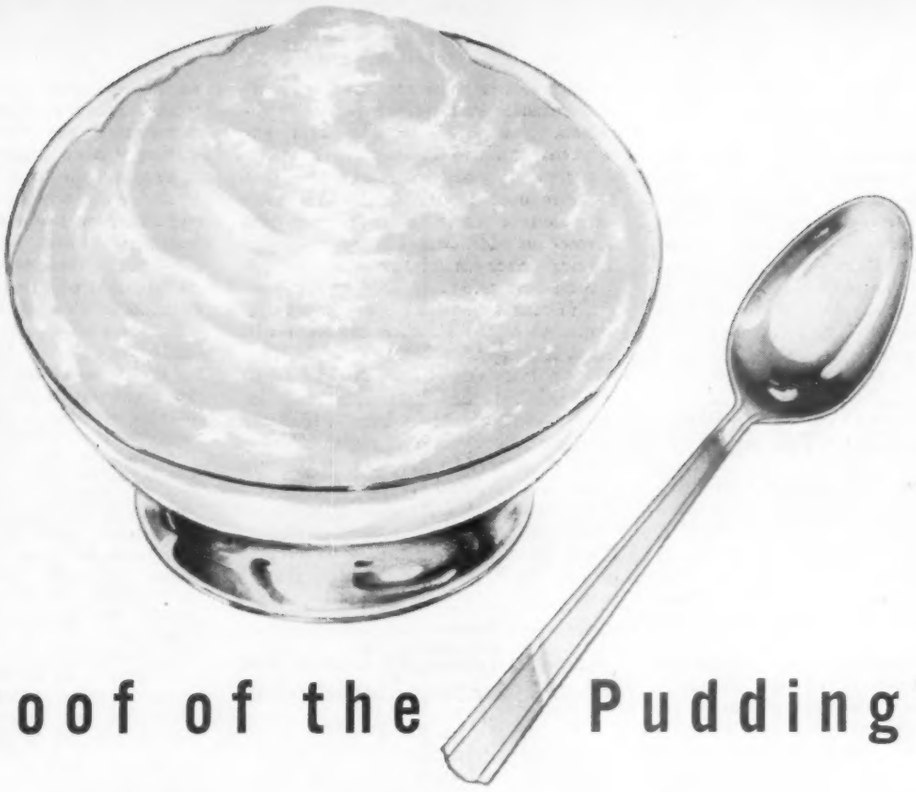
Going over the specific problems faced by the A.C.L., Mr. Davis discussed motor and water carrier competition, the failure of state commissions to allow intrastate freight rate increases after the Interstate Commerce Commission has approved similar interstate increases, and the "distressing losses" suffered from operation of unprofitable passenger trains.

"Vicious" Competition

The problem of unregulated motor carriers handling agricultural commodities was outlined by Mr. Davis as one of the "most serious problems confronting the railroads today." He said the existence of exempt motor carriers creates a competitive situation "in one of the most vicious forms" — and one which it is difficult if not impossible for the railroads to meet. He cited figures to show how these unregulated carriers have made "tremendous inroads" in movement of fresh fruits and vegetables from Florida.

The A.C.L. and other roads in southern territory have been confronted with another serious situation, Mr. Davis said, in that state regulatory bodies have been slow in allowing increases in intrastate freight rates to match interstate increases authorized by the I.C.C. There "appear to be undue delays in action by state commissions," he said, pointing out that these commissions have "almost invariably" required additional hearings following release of each of the I.C.C.'s general rate increases. Mr. Davis then went on to say that such delays on the part of state commissions in connection with the Ex Parte 162, 166 and 168 cases had cost the Coast Line an estimated $3,502,912 in lost revenue. State regulatory bodies have also in some cases made important exceptions to the interstate increases authorized by the I.C.C., Mr. Davis added, and such exceptions have denied the roads increased revenue on important intrastate traffic.

The final section of Mr. Davis' testimony was devoted to a discussion of the hesitancy of state commissions to allow railroads to discontinue unprofitable branch-line passenger trains. Declaring that this is a situation "which



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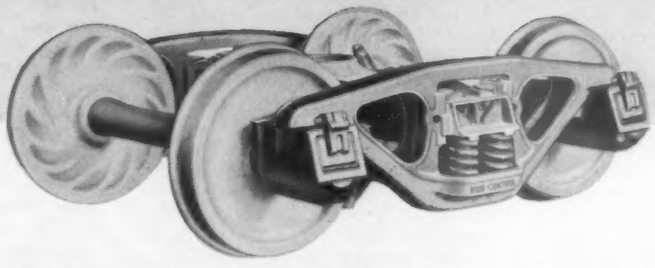

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is in crying need of remedy," he illustrated his remark with a number of recent experiences of the A.C.L.

"That inequalities exist in the regulatory laws is manifest, and that certain other regulatory laws are inadequate in preserving an efficient transportation system for our nation is also evident," Mr. Davis concluded. Correction of the problems outlined in his testimony would be a step toward a healthy national rail transportation system, he said.

Urge I.C.C. Not To Allow Coast-to-Coast Truck Line

Counsel for both eastern and western railroads told the Interstate Commerce Commission last week that if Pacific Intermountain Express is granted authority to operate a transcontinental truck line it will establish a policy that will be disastrous to the railroads.

In an all-day session on July 27, the full commission heard oral argument on the pending application in which P.I.E. seeks authority to acquire Keeshin Freight Lines. Keeshin holds operating rights between St. Louis, Mo., and Chicago and the Eastern seaboard, while P.I.E. operates between the west coast and the two midwest cities. Combining the systems would establish a coast-to-coast truck line.

Samuel P. Delisi, assistant general solicitor of the Pennsylvania, represented the eastern roads, while Joseph H. Hays, counsel for the Association of Western Railways, and Amos H. Mathews, association attorney, appeared on behalf of the western lines. They argued that final approval of the P.I.E. application would establish a precedent that would lead many other truck lines to seek transcontinental authority.

As noted in *Railway Age* of June 3, page 46, Examiner Irving J. Raley has recommended that the commission approve the P.I.E. plan to acquire Keeshin. The present oral argument was held in connection with Examiner Raley's report.

Mr. Hays charged, among other things, that establishment of transcontinental truck lines would cause more diversion of "high-rated traffic" from railroads to trucks. He declared that such diversion must be halted if the railroads are to survive. He continued by emphasizing the need for strong and healthy railroads, and said that while truck lines cannot duplicate the nation's rail system they are nevertheless willing to take away enough traffic to ruin it.

Mr. Delisi in his presentation told the commission that the real question at stake in this case is what will happen to the competitive situation in the east. He discussed the scope of present and past Keeshin operations and contended that the line has moved very little overhead traffic since 1939.

Walter R. Scott, vice-president of the Kansas City Board of Trade, also appeared before the commission to argue against granting the P.I.E. application. Speaking for 11 grain exchanges and five associations of grain dealers, Mr. Scott expressed fear that the proposed truck line would cause diversion of traffic to trucks and thus throw an additional burden on grain traffic, either in higher rates or impaired service.

In connection with the argument that approval of the P.I.E. application will establish a policy harmful to the railroads; last May the railroads asked the I.C.C. to institute a general investigation of "long-haul" highway transportation. (See *Railway Age* of May 6, page 54.) At that time there were 43 applications pending before the commission for authority to establish long-haul truck routes, many of them extending from the Atlantic coast or the Gulf of Mexico to the Pacific coast.

Advises I.C.C. to Leave Bus Fare Structure Undisturbed

Making his proposed report in the Interstate Commerce Commission's general investigation of bus fares, Examiner Michael T. Corcoran has recommended a commission finding that present charges and practices of motor carriers of passengers are not unreasonable or otherwise unlawful. The examiner followed through to recommend that the investigation, No. MC-C-550, instituted by the commission in July, 1946, be discontinued.

The proposed report is a comprehensive presentation of 191 mimeographed sheets, plus extensive appendices. It reviews a record which presented evidence on the history and all present phases of the bus business. No evidence was offered by representatives of the bus-riding public, or by "agencies of transportation which are competitive with motor bus transportation."

The proposed report, however, di discuss railroad competition with the bus lines. Such competition, the examiner concluded, was justification for the present pattern of the bus fare structure which avoids a uniform rate per mile, but provides long-journey fares on a per-mile basis below that involved in short-journey fares.

In the same part of his report, Examiner Corcoran also said that "unlike the rail carriers which have supported a deficit passenger-train service out of other revenues, the motor bus carriers have only one source of revenue." Previously he had analyzed figures indicating that "the bus lines have maintained their position better than the railroads since the war, although their traffic has suffered greatly from the increase in private automobiles."

Evidence on ticket-selling practices showed that in May, 1947, bus lines had 13,291 agencies in "commercial establishments," including 2,610 in drug stores, 2,687 in restaurants, 2,299 in filling stations, and 2,410 in retail stores. These agencies "ticketed" 27.4 per cent of the passengers "ticketed" during a May, 1947, week.

Leading up to his recommendation that nothing be done to alter the present situation, the examiner advised the commission that its consideration of the effect of rail competition should be in the light of the national transportation policy's call for encouragement of all modes of transportation. He then added:

"Clearly both motor bus service and rail passenger service are indispensible to, and must be adequate to meet the needs of, the commerce and the national defense of the country. The commission is required to encourage the establishment and maintenance of fares by motor bus carriers which will not be unfair to, or provide destructive competition with, rail carriers. This requirement, of course, does not mean that motor bus carriers should be encouraged to maintain fares which would be unreasonably high for the service for which they apply, solely for the purpose of protecting rail carriers from loss of their traffic."

Evidence as to the bus lines' average revenue per passenger-miles showed it at 1.74 cents for Class I intercity carriers in 1948. The territorial range was from 1.57 cents in the Pacific region to 1.99 cents in the middle Atlantic region. Referring in another place to the fact that bus lines have been relatively more successful than the railroads in holding long-distance travel business, the proposed report went on to say: "It is clear, however, that they could not have done so except at fares sufficiently below those of the railroads to offset the advantages of rail travel."

Transportation Corps Celebrates 8th Birthday

The Army's Transportation Corps, which was established temporarily on July 31, 1942, will celebrate its eighth birthday on July 31, and will at the same time mark its recent activation

Walter S. Thompson to Retire

Walter S. Thompson, director of public relations of the Canadian National since that company was formed in 1922 by the merger of Canada's several government-owned railways—and prior to that in charge of press relations for the old Grand Trunk—will retire in October at the attainment of age 65. Walter Thompson is widely known throughout the Dominion, and south of the border, also, as an indefatigable practitioner of his chosen profession. On several occasions he has been called into government service, e.g., as organizer of press censorship at the beginning of World War II; and has counted among his friends the famous visitors to Canada whose journeys in the Dominion he superintended—among these King George VI and Queen Elizabeth and the Duke of Windsor.

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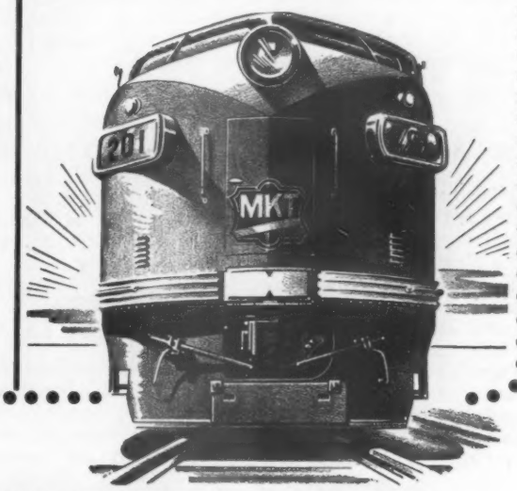

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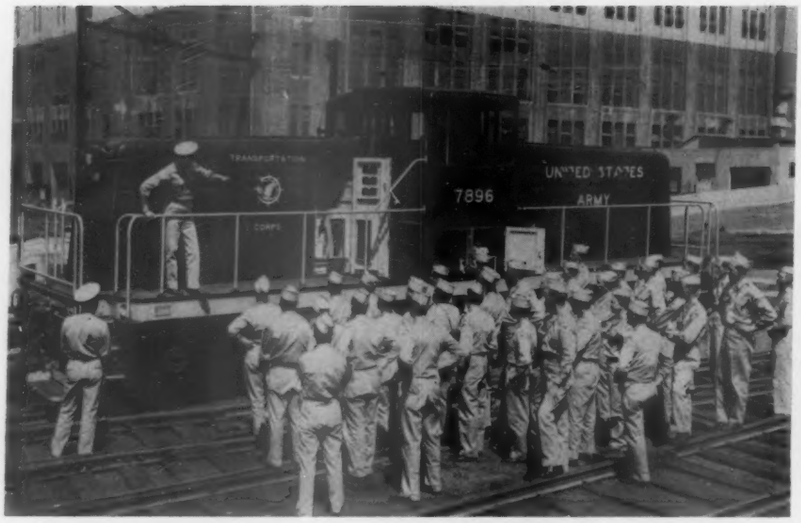


R.O.T.C. CADETS on summer training tour of the New York Port of Embarkation inspect an 80-ton 500-hp. Diesel-electric locomotive at the Brooklyn army base. The cadets are first of 600 from the transportation school who will visit the port this summer to observe operations of the army's largest port of embarkation as part of their training for commissions in the Army Transportation Corps

as a permanent branch of the military service.

"Transportation," the corps said in a recent statement to the press, "has not been a sensational part of our wars . . . yet it is the biggest, most laborious task during any war. The struggle to get a transportation corps in the Army started in earnest after World War I. when in 1920 the General Staff initiated a bill to Congress for a permanent corps — which did not pass. World War II created the temporary corps, and now a permanent T. C. has been established by Congress" by the Army Organization Bill, which was signed by President Truman on June 28 of this year.

All-Rail Route Supplements Great Lakes Ore Shipments

Iron ore is currently moving from the northern mining ranges to the steel manufacturing centers around Pittsburgh, Pa., over all-rail routes. The United States Steel Corporation said the movement was necessary because of a number of factors, including curtailment of lake shipments brought about by the recent strike of the Switchmen's Union of North America, which paralyzed the Great Northern's ore dock operations from June 25 through July 8. The strike, coupled with a late spring (which not only delayed opening of the navigation season, but also hampered mining operations due to the ore remaining frozen), has made it necessary to supplement the ore transport capacity of lake steamers by the all-rail service. The steel company indicated that movements by rail would continue throughout the present mining season.

Most of the ore moving by rail is going to plants in the Pittsburgh area; this is due in part to the fact that the steel plants in the Chicago area are not equipped to handle quantities of ore except through ore dock facilities.

Rail Motive Power Study Released by I.C.C. Bureau

A comprehensive study of railroad motive power, based upon both field study and detailed records collected from more than 50 railroads, has been released by the Interstate Commerce Commission's Bureau of Transport Economics and Statistics.

Entitled "Study of Railroad Motive Power," the 298-page report includes 131 pages of statistical tables on steam and diesel locomotive performance, as well as the extensive text material. The latter is devoted to a discussion of such subjects as "Changes in Railroad Motive Power Since 1929," "Comparative Analysis of Cost and Service Characteristics of Steam and Diesel Locomotives," "Estimated and Projected Total Savings From Use of Diesels," and "The Evolving Motive Power Picture."

Freight Car Loadings

Loadings of revenue freight in the week ended July 29 totaled 844,849 cars, the Association of American Railroads announced on August 3. This was an increase of 14,965 cars, or 1.8 per cent, above the previous week; an increase of 120,805 cars, or 16.7 per cent, above the corresponding week last year; and a decrease of 49,526 cars, or 5.5 per cent, below the equivalent 1948 week.

Loadings of revenue for the week ended July 22 totaled 829,884 cars, and the summary for that week as compiled by the Car Service Division, A.A.R., follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, July 22

District	1950	1949	1948
Eastern	148,086	126,852	153,909
Allegheny	170,437	136,470	179,437
Pocahontas	64,766	45,457	75,542
Southern	123,387	100,683	130,678
Northwestern	137 518	133,083	137,137
Central Western	122,999	119,360	136,541
Southwestern	62,691	56,611	68,885
Total Western Districts	323,208	309,054	342,563
Total All Roads	829,884	718,516	882,129
Commodities:			
Grain and grain products	57,676	75,172	65,007
Livestock	6,931	8,353	9,424
Coal	160,010	104,573	187,706
Coke	14,719	8 575	14,497
Forest products	49,278	38,272	52,953
Ore	84,345	77,618	81,327
Merchandise l.c.l.	80,093	85,403	99,044
Miscellaneous	376,832	320,550	372,171
July 22	829,884	718,516	882,129
July 15	789,268	724,183	892,090
July 8	553,876	595,321	755,100
July 1	783,357	644,182	757,278
June 24	810,152	802,941	888,368
Cumulative total 29 weeks	20,060,291	20,775,102	23,356,819

In Canada.—Carloadings for the week ended July 22 totaled 80,663 cars, compared with 78,201 cars for the previous week, and 74,526 cars for the corresponding week last year, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
July 22, 1950	80,663	31,720
July 23, 1949	74,526	30,000
Cumulative totals for Canada:		
July 22, 1950	2,104,737	888,505
July 23, 1949	2,096,379	902,499

Northwest Shippers Raise Fuss About Car Supply

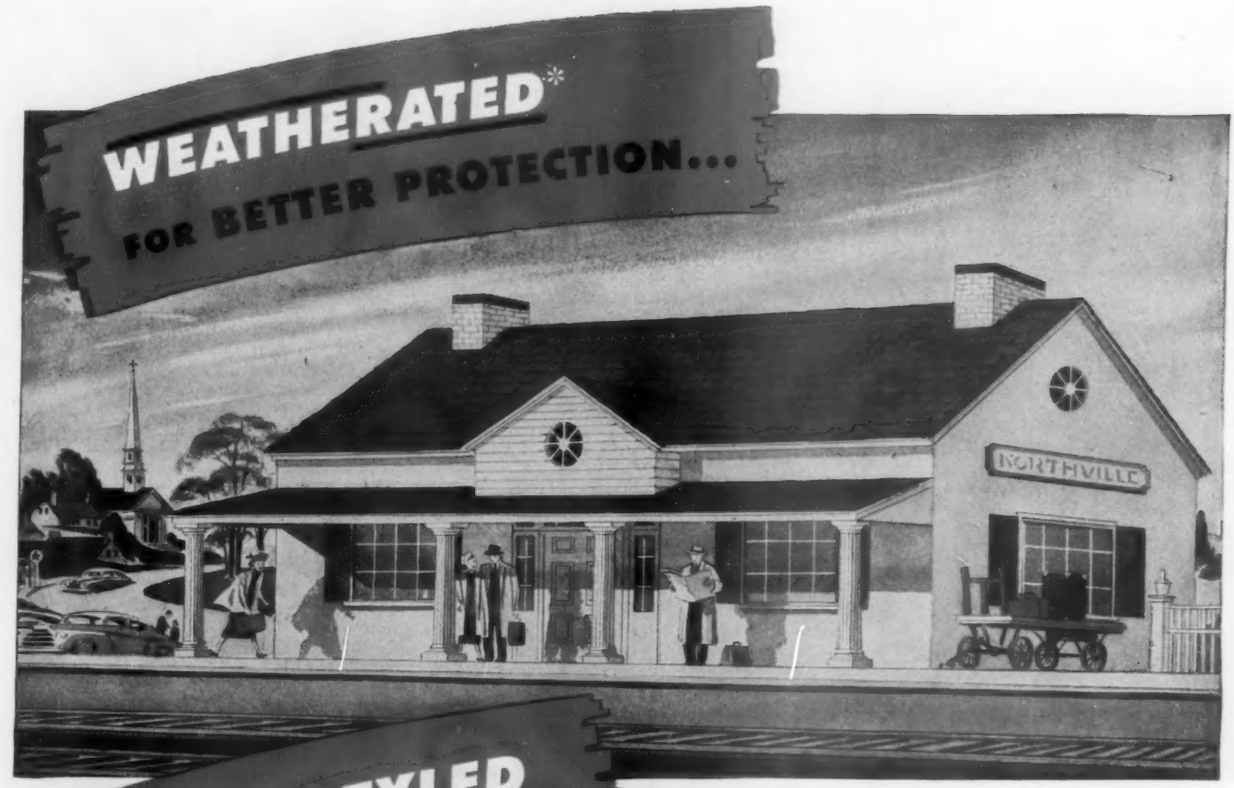
A long and heated discussion about freight car supply in the five-state area served by the Northwest Shippers Advisory Board, at its meeting at Superior, Wis., on July 27, produced unanimous approval of a letter addressed to President W. T. Faricy of the Association of American Railroads for presentation to member lines at the special meeting in Chicago the following day (reported elsewhere in this issue). The letter emphasized that "this district's car supply is in the most deplorable condition of recent years," and summarized the meeting's discussion as follows:

"(1) Despite a normal grain crop, plus a heavy impending movement of much of last year's crops, some of our lines have far less box cars than they actually own.

"(2) The number of box cars on repair tracks has reached an astounding figure. Failure to promptly repair these cars appears to rest mainly with eastern lines.

"(3) In addition to the deplorable box car situation, many complaints were also received from users of open-top equipment and stock cars.

"(4) The failure of American railroads to adequately replace worn-out equipment has resulted in a reduction in our national supply of box cars during the past 18 months of over 23,000 cars, while for the same period of time the number of bad-



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order box cars has increased by more than 12,000.

"(5) The nation's railroads in providing their car supply have neglected to take into account expanding economy, increased population, and consumption."

The letter went on to urge that:

"(1) Drastic and immediate steps be taken to improve the bad-order car situation.

"(2) Every possible effort be made to effect an equitable distribution of the available car supply.

"(3) Immediate steps be taken to increase our present car supply as rapidly as possible.

"(4) A greater effort be made to improve the turn-around time of all freight equipment.

"(5) The per diem rate be increased to an amount sufficient to compensate owner railroads for the cost, maintenance and interest on investment, plus a sufficient amount to make it desirable to build and own cars."

It wound up with the admonition:

"It appeared obvious from the general tone of the meeting that, if the continued full cooperation of the shipping public is to be maintained, effective action on the above problems must be taken."

"Edge of Disaster"

Robert J. Bayer, editor of Traffic World, focussed special attention on the ability of the transportation plant of the country to handle a new war load, declaring that "the railroads can point with pride to the job they accomplished" in World War II.

"I don't believe, however, that either railroad management or the users of their services would care to face the prospects of such another experience, even though they might well feel that, this time, too, they could weather it eventually. World War II was carried on with transportation continuously just too near the edge of disaster to risk again. I have said in another connection that the edge of disaster from which we luckily fought back in World War II was not at Pearl Harbor or at the Bulge. It was on the tracks and highways of this country where, for months on end, an overstrained transportation machine carried on so close to the breaking point that disaster might have happened overnight—any night."

Mr. Bayer expressed the opinion that the general railroad plant "is in better shape today" than it was at the beginning of World War II. He emphasized particularly extended Dieselization and "the appreciable number of modern, large freight cars to take the place of the antiquated vehicles that rattled over the tracks in the early forties." With respect to total car supply, however, the speaker was not so optimistic. He called attention to the fact that the normal civilian traffic load is much heavier now than at the time of Pearl Harbor; that there was no serious car shortage at the beginning of World War II; that, on the other hand, "if we are to believe what has transpired at regional shippers' board meetings this summer, we are in a very real car shortage now."

Regarding the policy of the railroads in ordering cars Mr. Bayer declared:

"It came as a considerable surprise to many shippers to learn, only a few weeks ago, that the slacking-off of the railroads' ambitious car-building program (you may remember that it called for a monthly production of 10,000 new cars, a goal that was attained only in a comparatively few months) had been deliberate. Shippers knew the facts, of course; and those were not merely that the program was not being met but that orders for cars were not being placed. Now they are told, for the first time, that the reason why so few cars were on order at the close of 1949 was because it appeared then that business generally was curtailing its expansion programs and that, therefore, the railroads, having in mind that they had been roundly criticized in the thirties, for having too many idle cars deteriorating on side-tracks and in yards, felt that they, too, ought to curtail their car-building programs."

The speaker owned himself "willing to admit that the railroads had a right to act in accordance with their judgment in the closing months of 1949" but expressed sharp criticism because, he asserted, the railroads "made no public statement of any kind" regarding curtailment of their car-building program "in anticipation of a recession in business in 1950."

Views on Johnson Plan

While praising I.C.C. Chairman J. Monroe Johnson for his "persistence and tenacity" in advocating government financing of a "stockpile of freight cars," the speaker held the plan to be undesirable because it injected government into private business—"the United States will have an interest in the railroads, through ownership of the equipment they will be moving." Mr. Bayer admitted that he had had recently to revise his view of the Johnson plan:

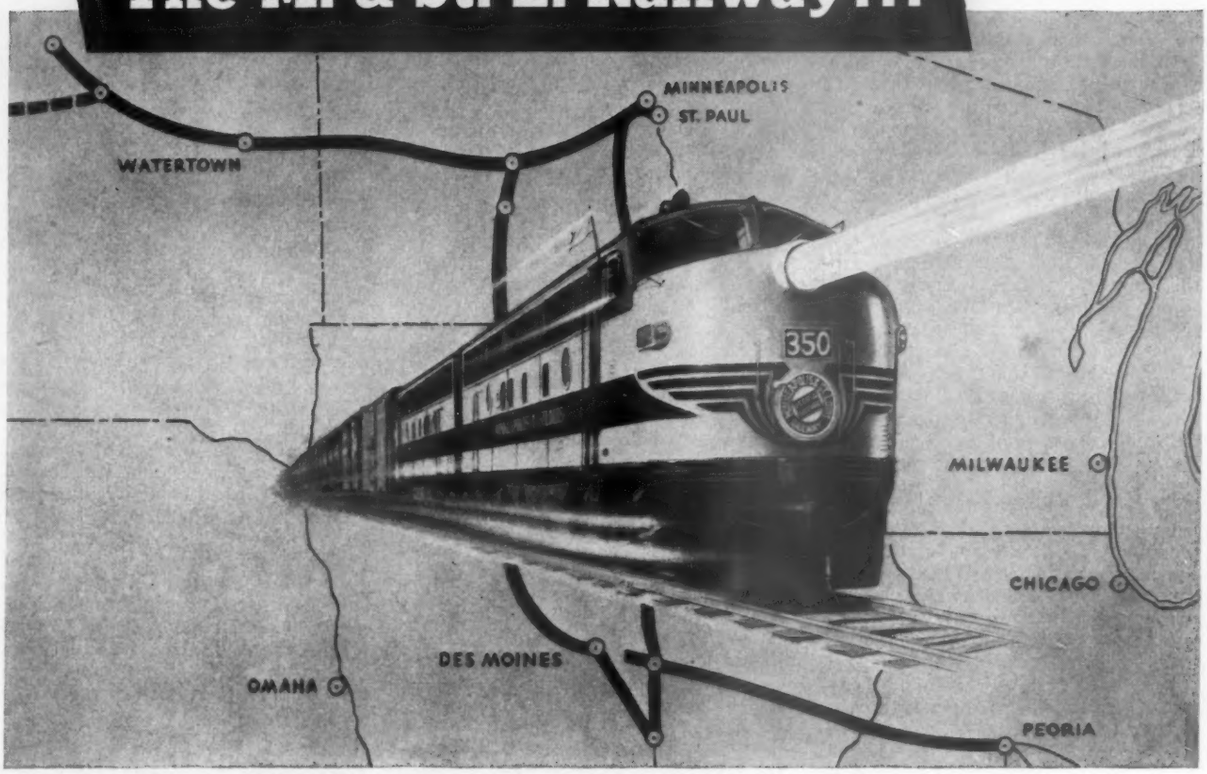
"We still think it dangerous; we still think it could be the entering wedge to government ownership. But we are not as sure as we were two months ago that it is unnecessary—that the railroads could do the job of bringing their car supply up to needs better by themselves. Time is now running against them. And we can hardly expect the government to overlook an opportunity it has under war powers. Government would, we fear, be quicker to allocate necessary steel for cars if it were to build them itself. Its example in World War II, when it shortsightedly held down steel allocations for cars necessary to haul the very war material built out of that steel, is indicative of what its attitude might be towards pleas for materials out of which the railroads could order cars themselves."

Per Diem

Shippers who attended the meeting were particularly exercised over the effect of per diem charges on car ownership. There occurred a lengthy, off-the-record interchange of ideas, both by railroad representatives and shippers, out of which came general agreement that per diem ought to be high enough to encourage greater car ownership. R. E. Dobbins, traffic manager, Northrup, King & Co., Minneapolis, Minn., who introduced the subject, declared that "our own railroads build good cars and send them off line; they don't come back until their legs are broken and their hair is gray . . . Everyone knows that a smart operating man — there are many of them on the railroads — will, and should, take advantage of the situation and get what he can for less than it costs." Mr. Dobbins admitted that shippers can't decide what the per diem ought to be but declared "they ought to insist on good railroading, and that means a rate that will encourage a healthy car

Ready for service, the first of 1,000 box cars built for the Chicago, Rock Island & Pacific by the American Car & Foundry Co.'s Chicago plant await delivery to the road's Blue Island, Ill., yard

The M. & St. L. Railway...



Serving America by Speeding Freight in and through *The Great Midwest...*

To and from the East, South and West, freight Moves Faster via the Minneapolis & St. Louis Railway and its strategic Traffic Gateways.

Hours in transit are saved on shipments between Eastern and Midwestern points, when routed via Peoria and the M. & St. L., eliminating delays in congested terminals.

Typical is four-day delivery on freight, LCL or carload, from the Philadelphia Metropolitan Area to the Twin Cities, assured by routing through Peoria and over the M. & St. L. Shipments dispatched Monday, for example, arrive Friday in Minneapolis. Comparable fast schedules are in effect from other centers throughout the East.

Westbound or Eastbound, the vital links in this time-saving service are the Peoria Gateway of the M. & St. L. and its daily non-stop trains, No. 19 and 20, Diesel-powered, which make the 476-mile run between Peoria and Minneapolis in less than 18 hours.

THE MINNEAPOLIS & ST. LOUIS RAILWAY CO. — THE PEORIA GATEWAY

Diesel Locomotives now power all M. & St. L. Freight Trains

The Minneapolis & St. Louis Railway

Traffic Offices in 36 Key Cities

supply." During the discussion L. E. Luth, director of traffic, National Battery Company, St. Paul, Minn., injected the warning that shippers should use discretion in encouraging a build-up of the car supply because they will have to pay for whatever is purchased. One way to get cars, he said, is to help the railroads get back the high-rated traffic they have lost so that they can pay for the cars their customers want.

O. E. Hallberg, superintendent of transportation, Chicago & North Western, asserted that shippers don't have the figures by which to ascertain the proper per diem rate. What they can do, he said, "is to put the heat on the roads that don't own enough cars." F. E. Sperry, assistant vice-president, Chicago, Burlington & Quincy, opposed the suggestion of a penalty per diem rate, but advocated "one high enough so a man can make money by owning cars."

Particular criticism was levelled at the eastern railroads' bad-order car condition. E. L. Peterson, Minneapolis Traffic Association, circulated a mimeographed statement on which it was indicated that 7.2 per cent of cars on line on eastern roads were undergoing repairs as of June 1, compared with 4.6 per cent on January 1, 1949. This compared with a bad-order percentage of 4.7 per cent on June 1 on western lines. During the ensuing discussion R. E. Clark, manager, Closed Car Section, Car Service Division, A.A.R., said the coal strike and individual road employee strikes had made it necessary for many roads to curtail car-repair programs. He pointed out that two eastern roads, singled out for particular criticism, each turned out 1,000 repaired cars during June alone and that one of them farmed out repairs to private contractors. He said that large shops were on a six-day basis and, at some points, on a seven-day week.

"No Roller Skates"

Earlier, in his scheduled remarks, Mr. Clark said the car supply "is not satisfactory with respect to the present or prospective situation" but that "it is not a cause for alarm either." He reviewed the fact that the roads had spent $7 billion on improvements since the start of World War II, and asserted that one-third of the total ownership of freight cars is new since the beginning of that conflict. Furthermore, he said, World War II proved that the roads can handle a great deal more traffic with the same fleet during a military emergency than they can in peacetime. Grain movement this year, he said, is characterized by "all kinds of queer movements." Grain is moving back from terminal elevators to country elevators, for example. Storage space is being found in airplane hangars, oil tanks, and other emergency sites.

Several shippers complained about the poor quality cars they are receiving. One said the railroads waste money "sending such poor cars out in the country; they only have to be pulled back to terminals for repairs." Another shipper said he had just received a car for loading which had broken door posts, despite the fact that it had just been newly painted. Regarding the car supply, another shipper expressed the opinion that the railroad plant is fine "except that we have no cars." He added: "We have a wonderful roller skating rink and no skates . . . If I were in business I wouldn't expect my customers to help me ration out the commodities I have to sell."

H. W. Bishop, general chairman of the board, and traffic manager, Nash Finch Co., Minneapolis, warned that it may be necessary to reinstate heavy loading rules and penalty demurrage and to curtail diversion reconsignment and holding privileges. He also "slipped in a paragraph" on what he termed too-slow progress in improvement of freight tariffs—a subject on which he intended to say something every meeting during his term of office.

G. E. Hunt, traffic manager, Butler Bros., Minneapolis, said his firm combined consignments to customers ordering in less-carload quantities. To continue to do this, he said, he needed up-to-date information on l.c.l. service. "If service should deteriorate in the next few months, the least you can do is let the trade know about it." He said the railroads could increase their car supply by switching out cars made empty with greater promptness. In general he favored substitution of truck for railroad service on l.c.l. by the railroads themselves.

Further Mail-Pay Hearings Will Begin November 29

Further hearing in the long-pending railway mail pay case, in which the nation's railroads are seeking a 95 per cent increase in their rates for handling mail, will be held on November 29 and not on September 19 as previously scheduled. The Interstate Commerce Commission announced the change in dates in a notice issued July 31.

The November 29 hearing will be before Commissioner Mitchell and Examiner Mullen, in Washington, D. C. The hearing notice directed the railroads and the Post Office Department to exchange their proposed presentations and file them with the commission on or before October 16.

The 95 per cent increase in mail pay which the railroads are seeking would amount to an advance of about 56 per cent in present rates. (See *Railway Age* of April 8, page 59.) The present rates include on interim increase of 25 per cent that became effective February 1, 1948, retroactive to February 19, 1947.

At the November 29 hearings, the commission will also receive evidence with respect to a "comprehensive plan" for transportation of mail which the postmaster general has entered in the proceeding.

Senate Gets Report On Unemployment Study

Senator Neely, Democrat of West Virginia, has submitted to the Senate a report by the committee on labor and public welfare on its recent investigation into causes of unemployment in the coal, oil, silver, zinc, lead and railroad industries.

The investigation, conducted pursuant to Senate Resolution 274, was carried out by a subcommittee of which Senator Neely was chairman. It developed primarily into a study of the coal and oil industries, and the present report discusses railroad unemployment only in relation to coal traffic. In this connection the report speaks of the "concurrent harmful effect" which the railroad industry suffers with the decline in the market for coal.

As noted in *Railway Age* of June 3, page 47, and June 24, page 126, railroad witnesses appearing before the subcommittee during the hearings denounced importation of "cheap foreign oil" because it displaces coal. The present report in its conclusion recommends "a reexamination of tariff rates on imported oil."

Canadian "Non-Ops" Set August 22 Strike Date

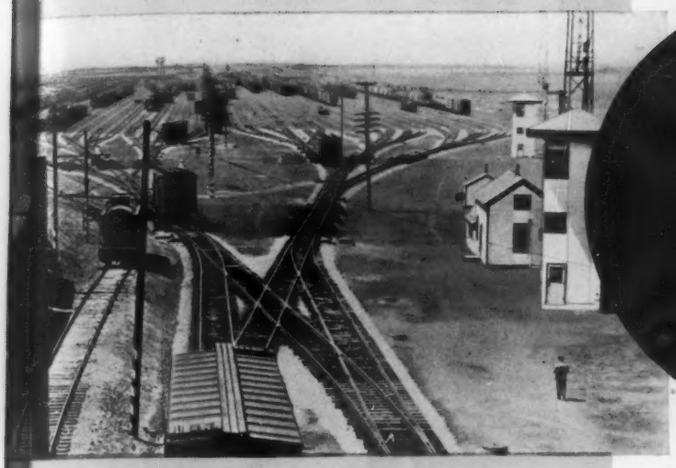
Fifteen international unions, representing some 90,000 non-operating employees of four Canadian railroads, have set August 22 as the date for a strike to enforce their demands for a five-day, 40-hr. week plus a pay increase.

The railroads involved—the Canadian National, the Canadian Pacific, the Ontario Northland and the Toronto, Hamilton & Buffalo—have accepted, while the unions have rejected, a compromise settlement proposed some months ago by a government conciliation board.

Committees Clear Union Shop and Check-off Bills

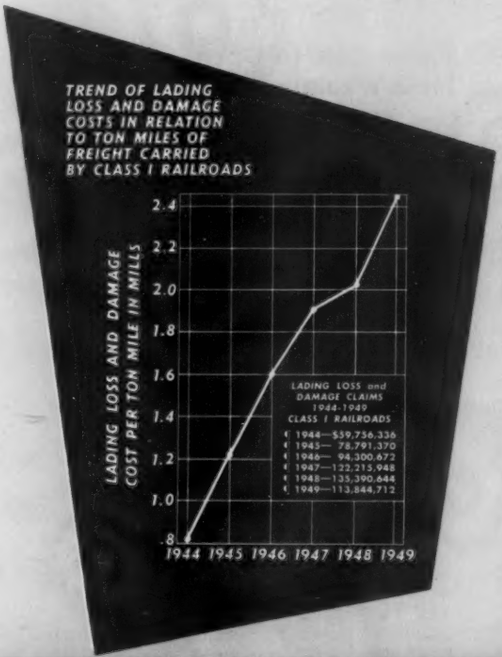
The House committee on interstate and foreign commerce and a Senate subcommittee on labor and public welfare each voted August 2 to report favorably the pending bills which would amend the Railway Labor Act so as to authorize union shop agreements and the check-off of union dues.

The House action was taken on H.R. 7789, which was introduced by the interstate committee's chairman, Rep. Crosser, Democrat of Ohio. On the Senate side the subcommittee was voting on S. 3295. Each of the proposed bills contains the same provisions, and each has been vigorously opposed by railroad management at hearings before the respective committees. (See *Rail-*



X marks the spot

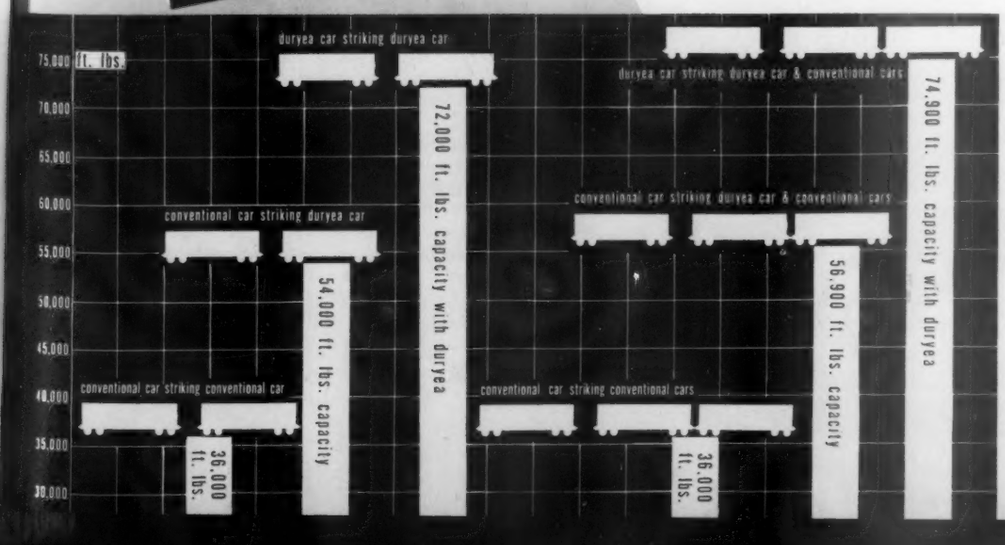
where that 40% extra lading protection is vital



It's in the classification yard where lading, cars, and shipper good-will all take a beating. That's where cars most need the protection of "shock-force control" — where Duryea Cushion Underframe provides that 40% extra lading protection to safeguard cars and lading against the great majority of excessive coupling impacts which occur so frequently in today's high speed switching operations.

The cost? First cost is slightly higher than for conventional draft rigging, but what you save in maintenance, in car repair and overhaul, will more than pay the premium in a few years time. The extra revenue from more on-line operation and the saving in damage claims is all clear profit.

The way today is specify Duryea for all new cars. Send us your inquiry.



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332 SOUTH MICHIGAN AVENUE CHICAGO 4, ILLINOIS

BURLINGTON AND PENNSYLVANIA officers met recently at Galesburg, Ill., for inspection of the former's big classification yard at that point. Left to right in the picture are Paul Neff, P.R.R.; W. E. Stouffer, Burlington passenger agent; C. H. Bremhorst, Burlington superintendent of terminals at Galesburg; E. C. Gegenheimer, acting director of public relations, P.R.R.; H. R. Duncan, superintendent of timber preservation, Burlington; Bernard Schimmel, manager of Galesburg's Hotel Custer, in front of which the picture was taken; and John H. Gilfallen, of the Burlington's Chicago headquarters

way Age of May 27, page 44, and May 20, page 206).

Before voting to send H.R.7789 on to the House with its recommendation, the House group incorporated into the bill an amendment proposed by Representative McGuire, Democrat of Connecticut and himself a member of the committee. This amendment would have the effect of giving protection to any employee who might be denied union membership, or who might be dismissed from such membership, for any reason other than non-payment of dues and assessments.

The Senate bill, S3295, goes next to the full committee on labor and public welfare for consideration. The subcommittee's action was in effect a recommendation to the full committee that the proposed legislation be cleared for Senate action.

Truman Grants Age Waiver To Commissioner Patterson

An executive order issued by President Truman on August 2 has exempted Interstate Commerce Commissioner William J. Patterson from compulsory retirement provisions of the Civil Service Retirement Act. Commissioner Patterson, who reached the retirement age of 70 on June 4, will continue as a member of the commission "for an indefinite time not extending beyond the expiration of his present term of office."

The order, which is retroactive to July 1, states that his present term of office shall be considered as expiring upon the appointment and qualification of a successor.

Commissioner Patterson, who joined the I.C.C.'s staff in 1914, has been a member of the commission since 1939. He was reappointed in 1945 and the term he is now serving runs to December 31, 1952. (See *Railway Age* of July 8, page 102.)

1949 Commodity Statistics By Geographical Areas

The Interstate Commerce Commission's Bureau of Transport Economics and Statistics has made public its statement No. Q-550 for the year 1949. It shows for Class I railroads tons of revenue freight originated and terminated in carloads by classes of commodities and by geographical areas.

The commodity-group figures total 1,213,910,912 tons originated and 1,125,815,013 tons terminated. The "geographical areas" breakdown is by states, except that the six New England states are grouped together. The largest originator and terminator is Pennsylvania, where 176,711,584 tons originated and 141,725,497 tons terminated in 1949. Illinois, as in 1948, was the leader in forwarder traffic, with 1,023,544 tons originated and 679,048 tons terminated.

Illinois also originated the largest tonnage of agricultural products in 1949—14,798,125 tons. Texas terminated the largest tonnage of such products—13,584,913 tons. As to animals and products, Iowa, with 2,023,269 tons, was the largest originator; and New York, with 1,926,544 tons, was the largest terminator.

Pennsylvania was the leading originator and terminator of products of mines, with 128,797,792 tons and 98,337,397 tons, respectively; and it also led the manufactures and miscellaneous group, with 46,309,199 tons originated and 34,309,171 tons terminated. Oregon, with 10,923,823 tons originated, and Washington, with 6,311,706 tons terminated, headed the forest products group.

Myers Subcommittee Gets More Time, Added Funds

The Senate voted last week to extend to February 28, 1951, the time in which the so-called Myers subcommittee on domestic land and water transportation may complete its investigation of the transportation situation. At the same time the Senate approved an additional $69,000 for use in compiling a report of the subcommittee's investigation, and in preparing any legislation that may grow out of it.

The subcommittee, which was authorized by Senate Resolution 50, is headed by Senator Myers, Democrat of Pennsylvania, and is a unit of the committee on interstate and foreign commerce. It began its series of public hearings on April 4. These hearings have continued on a semi-weekly basis since that time and were concluded July 28.

According to E. R. Jelsma, director of the committee's staff, all who asked to testify have been permitted to do so, and no further hearings are contemplated.

Burlington to Open New Wyoming Line

To avoid inundation by a 50-sq. mi. reservoir to be created by Boysen dam, a 12-mi. segment of the Chicago, Burlington & Quincy's Denver, Colo.-Billings, Mont., main line near Thermopolis, Wyo., has been relocated by the United States Bureau of Reclamation. The project will be completed on August 5, when a special Diesel-powered train of "open air" cars will make the first trip over the new route.

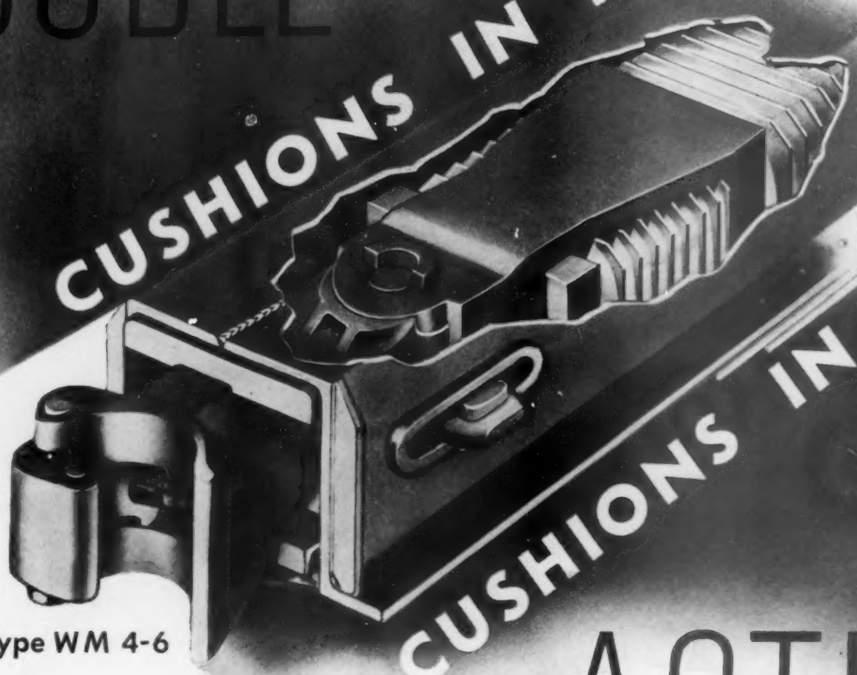
The relocation involved construction of approximately 12 mi. of track through a rugged terrain with open cuts up to 105 ft. deep. Six major bridges were required, including one 543-ft. structure which spans the Big Horn river at a height of 70 ft. The outstanding feature of the project is a 7,131-ft. tunnel, 25 ft. 8 in. high and 17 ft. wide. This tunnel required excavation of 153,200 cu. yd. of material, and 77,900 cu. yd. of concrete, plus 2,850,000 lb. of reinforcing steel and 8,542,000 lb. of structural steel supports, were required for its lining. All rail joints inside the tunnel are welded and 129-lb. torsion-resisting rail is used. Other portions of the new line are laid with 90-lb. rail.

Under one section of the tunnel it was necessary to remove unstable material down to bedrock and pour a concrete footing for support. In another section, the tunnel is supported by piers founded on bedrock, making, in effect, a bridge of the tunnel itself. Three centrifugal fans with a

(Continued on page 73)

SAVE THE ADDED COST IN A FEW SHORT MONTHS

DOUBLE-ACTION LADING PROTECTION



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It's the jerks and jolts of starting, stopping and the over-solid coupling impacts that damage cars and destroy lading. These forces of impact are minimized when cars are protected with Waughmat Twin Cushions. Waughmat Twin Cushions *never go solid* . . . they have no solid point. Double-action rubber plates take the bite out of impact. In pull or in buff, Twin Cushions are always cushioning . . . always providing protection for cars and lading. This protection has been amply proven in millions of miles of stock car and box car freight service. Specify Twin Cushions on your next car order.

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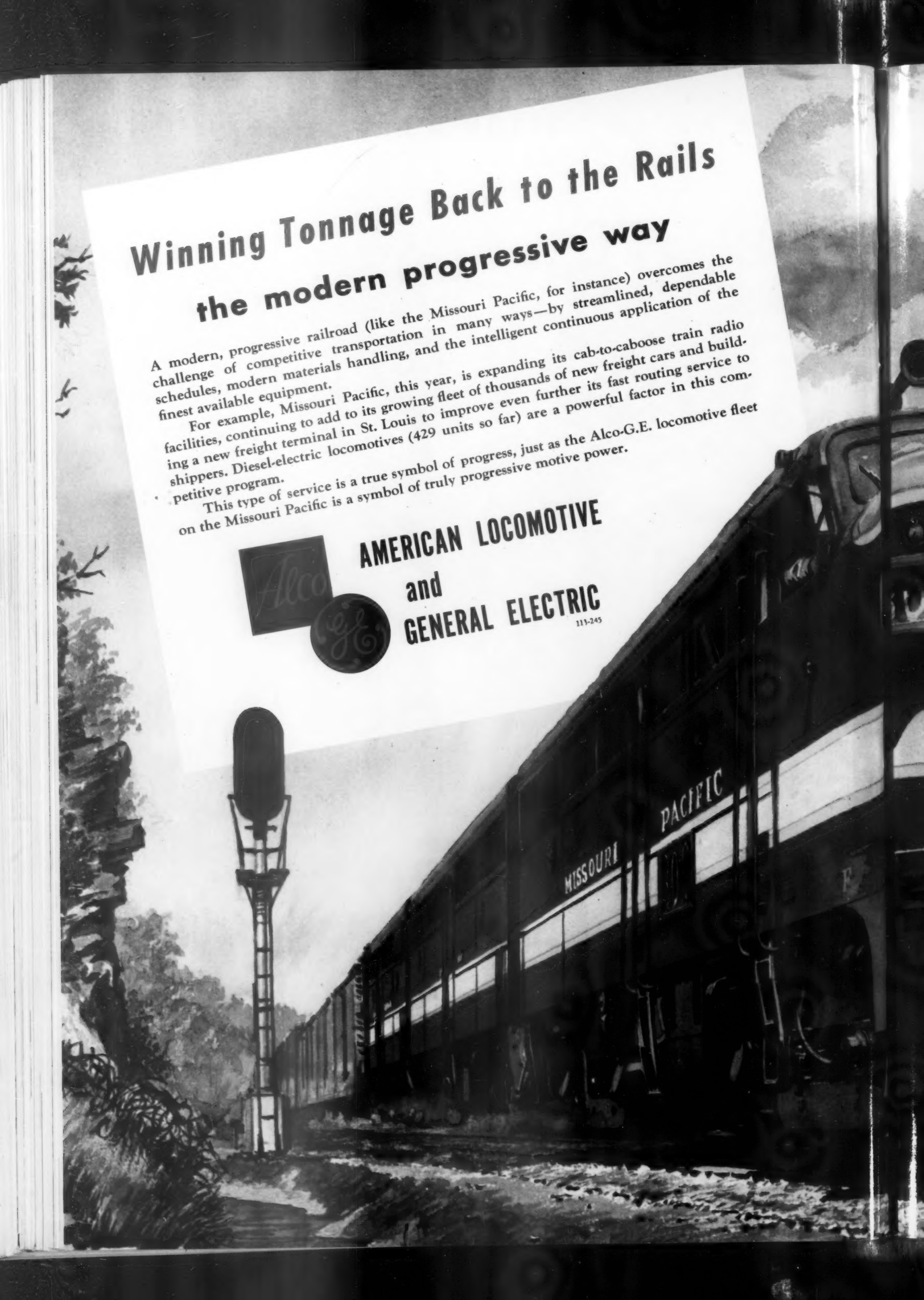
Winning Tonnage Back to the Rails
the modern progressive way
A modern, progressive railroad (like the Missouri Pacific, for instance) overcomes the challenge of competitive transportation in many ways—by streamlined, dependable schedules, modern materials handling, and the intelligent continuous application of the finest available equipment.
For example, Missouri Pacific, this year, is expanding its cab-to-caboose train radio facilities, continuing to add to its growing fleet of thousands of new freight cars and building a new freight terminal in St. Louis to improve even further its fast routing service to shippers. Diesel-electric locomotives (429 units so far) are a powerful factor in this competitive program.
This type of service is a true symbol of progress, just as the Alco-G.E. locomotive fleet on the Missouri Pacific is a symbol of truly progressive motive power.
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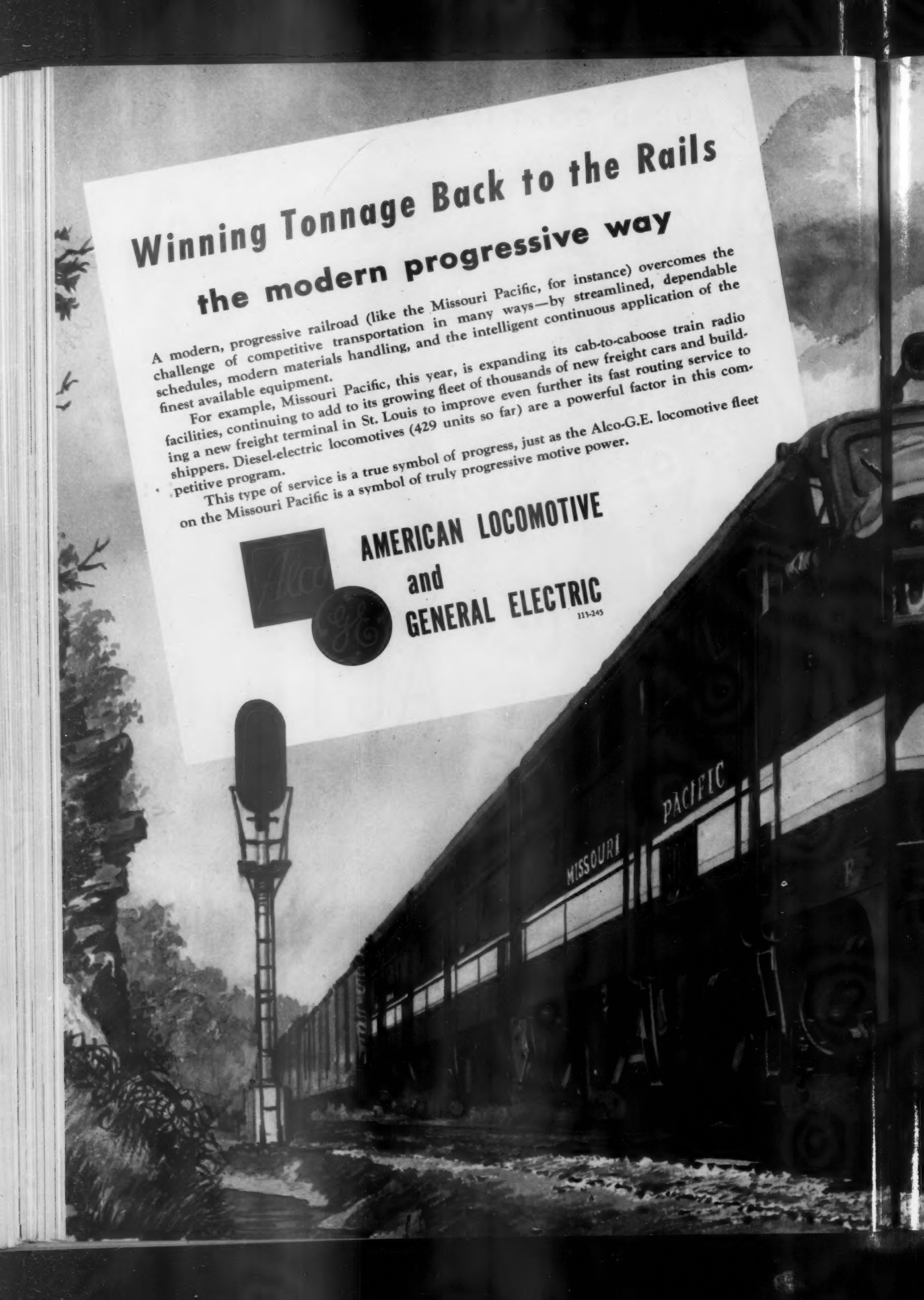
MISSOURI PACIFIC

MISSOURI
PACIFIC
LINES
309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LINES
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DEADHEADING GONDOLAS ARE DEATH ON PROFITS!

Cut the movement of empties with gondolas that carry all types of freight—equipped with

NAILABLE STEEL FLOORING

You know the costs, and problems, of shifting *wood floor* gondolas from job to job . . . and of getting *steel-plate* floor gondolas from place to place. Such deadheading takes a whole lot of time and money.

NAILABLE STEEL FLOORING changes all that. Now, with N-S-F, the same gondolas that deliver *rough* freight—coal, pig iron, crushed stone—can carry away wood-blocked loads, skidded "floating" loads, or any other kind of open-top finished freight.

NAILABLE STEEL FLOORING makes this possible because (1) it's formed of tough, corrosion-resistant N-A-X HIGH-TENSILE steel that stands up under the roughest clamshell or magnet loading. Yet (2) NAILABLE STEEL FLOORING takes nails easily, holds them tight, and has an excellent surface for blocked or skidded loads.

All this benefits car supply and improves operations; when equipped with NAILABLE STEEL FLOORING, 500 gondolas can do the work of 700 to 800 wood floor or steel-plate floor gondolas. You can serve more shippers, faster, with less equipment!

When ordering new gondolas, or rebuilding old ones, be sure to specify NAILABLE STEEL FLOORING.

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PATENTS N·S·F HOLDS BLOCKING BETTER A GREAT LAKES STEEL PRODUCT PENDING

GREAT LAKES STEEL
Corporation

Steel Floor Division, Ecorse, Detroit 29, Michigan
UNIT OF NATIONAL STEEL CORPORATION

SAVE FLOORING WEIGHT • GAIN FLOORING STRENGTH

In a 52′ 6″ gondola, to attain floor strength equal to that of NAILABLE STEEL FLOORING—made of corrosion- and abrasion-resistant N-A-X HIGH-TENSILE steel—would require approximately 1,600 pounds more weight if plain carbon steel were used. In a 40′ 6″ boxcar, it would require 1,000 pounds more in plain carbon steel.

(Continued from page 68)

capacity of 600,000 cu. ft. per minute, controlled automatically by the block signal system, furnish ventilation. The tunnel is equipped with electric lights and features outlets for operation of portable electric power tools. Completion of the tunnel took 923 days; driving the bore itself consumed 685.

In connection with opening ceremonies, the "air conditioned" special train will take Dr. A. G. Crane, governor of Wyoming, and a number of federal, state and local government officials, including representatives of the Shoshone Indians, together with officers of the Burlington, on a trip covering both old and new lines. Leaving Thermopolis at 1 p.m., the train will travel over the present line to Bonneville, returning via the new line to the south portal of the tunnel. Harry E. Polk, of Williston, N. D., president of the National Reclamation Association, will be the principal speaker at ceremonies there. After passing through the tunnel, which will be the longest on the Burlington, the train will return via Wind River canyon, arriving at Thermopolis at 4:30 p.m. The town of Thermopolis, through its chamber of commerce, will be host to the group.

ORGANIZATIONS

Short Line Group To Meet October 3-4 At Tulsa, Okla.

The American Short Line Railroad Association will hold its thirty-seventh annual meeting October 3 and 4 at the Mayo Hotel, Tulsa, Okla. Announcement of the meeting was made this week by the association's president, J. M. Hood.

D. P. Loomis, chairman, Association of Western Railways; E. H. Davidson, director of the Bureau of Locomotive Inspection, I.C.C.; Chairman John Thad Scott Jr. of the National Mediation Board; F. C. Squire, member of the Railroad Retirement Board; and H. N. Roberts, chairman, Texas-Louisiana Freight Bureau, will be speakers at the Short Line meeting, according to the notice from M. Hood.

Other proceedings of the meeting will include reports of the association's officers and standing committees. The latter will deal with accounting, car service, legislation, developments of interest to mechanical officers, operations, traffic, mail pay and express, and freight claim rules.

At election sessions on the meeting's opening day, the association's members will choose the board of directors and officers for next year, while members of regional groups will elect the regional vice-presidents.

T. H. Steffens, president of the Sand Springs Railway Company and a regional vice-president of the association, is chairman of the committee on arrangements for the meeting. W. G. Vollmer, president, Texas & Pacific, is to be featured speaker at the association's luncheon October 3.

EQUIPMENT AND SUPPLIES

Domestic Equipment Orders Reported in July

Domestic orders for 87 Diesel-electric locomotive units, 15 steam locomotives and 9,544 freight cars were reported in *Railway Age* in July. Estimated total cost of the locomotives is $13,810,000, and of the freight cars $37,221,600. An accompanying table lists the orders in detail.

During the first seven months of 1950, *Railway Age* has reported domestic orders for 1,251 Diesel-electric locomotive units and 15 steam locomotives, costing an estimated $178,686,000; 47,824 freight-train cars, costing approximately $235,511,600, and 14 rail Diesel cars costing $1,864,000.

The **Chicago, Indianapolis & Louisville** is inquiring for 100 box cars and 150 open-top cars of various types. The road contemplates making inquiry for a similar quantity of each type car within a short time.

The **New York Central** has placed orders, subject to subsequent confirmation, for 6,001 freight cars, as follows: From Despatch Shops—500 refrigerator cars (for the Merchants Despatch Transportation Corporation); 1,000 55-ton 40½-ft. box cars (for the Pittsburgh & Lake Erie); 500 55-ton 50½-ft. box cars; 500 70-ton 52½-ft. gondola cars; 500 70-ton hopper cars, and 1,000 55-ton hopper cars; from the Pullman-Standard Car Manufacturing Company—1,000 box cars; from the Bethlehem Steel Company—500 70-ton gondol cars; from the Greenville Steel Car Company—500 70-ton gondola cars and one 125-ton well-type flat car. Plans for acquisition of 1,500 70-ton gondola cars; 1,500 55-ton hopper cars; 2,000 55-ton, 40½-ft. box cars; 500 55-ton, 50½-ft. box cars, and 500 40-ton refrigerator cars, to cost an estimated total of $31,500,000, and for 1951 delivery, were reported on page 51 of *Railway Age* for July 29.

The **Pennsylvania** has ordered 5,000 new freight cars to cost approximately $27,000,000. Included in the order are 2,000 52½-ft. gondola cars to be built by the American Car & Foundry Co.; 1,000 52½-ft gondolas to be built by the Pullman-Standard Car Manufacturing Company; 750 52½-ft. gondolas and 250 50-ft. standard box cars to be built by the General American Transportation Corporation, and 1,000 40½-ft. box cars to be built by the Pressed Steel Car Company. Deliveries of these cars are expected to begin in January, 1951, and to be

Locomotives

Date	Purchaser	No.	Type	Builder
July 1	N.Y.C.*	14	1,500-hp. rd.-switch.	Electro-Motive
		7	1,200-hp. switch.	Electro-Motive
July 1	S.A.L.	19	1,600-hp. frt.	American-G.E.
		4	1,600-hp. gen. svce.	American-G.E.
		15	1,500-hp. frt.	Electro-Motive
		8	1,500-hp. gen. svce.	Electro-Motive
		14	1,000-hp. switch.	Baldwin
July 8	N. & W.	15	0-8-0 steam switch.	R.R. Shops
July 29	D.S.S. & A.	5	1,600-hp. all-svce.	Baldwin
		1	1,500-hp. sw.	Baldwin

Freight Cars

July 1	Ann Arbor	75	70-ton Cov. Hopper	Pullman-Standard
July 1	Southern	250	70-ton Cov. Hopper	Pullman-Standard
July 8	G.M. & O.	200	50-ton Auto Box	American Car & Fdy.
		100	50-ton Pulpwood	R.R. Shops
July 8	N. & W.	1,000	70-ton Hopper	R.R. Shops
July 15	Warren Maritime Corp.	200	11,000-gal. Tank	American Car & Fdy.
July 22	C. & O.	2,000	70-ton Hopper	American Car & Fdy.
		1,000	70-ton Hopper	Bethlehem Steel
		1,000	50-ton Box	Pullman-Standard
July 22	G. M. & O.	300	Flat	R.R. Shops
July 29	C. & E. I.	200	50-ton Box	R.R. Shops
		25	Cov. Hopper	Thrall Car
July 29	C. M. St. P. & P.	600†	Iceless Refrig.	R.R. Shops
July 29	C. R. I. & P.	69	70-ton Cov. Hopper	American Car & Fdy.
July 29	Lehigh Valley	300	70-ton Gondola	Bethlehem Steel
July 29	Reading	1,000	50-ton Hopper	Bethlehem Steel
July 29	So. Pac.	1,000	50-ton Box	Pullman-Standard
July 29	Union Tank Car	225	Tank	Co. Shops

* For the Peoria & Eastern
† Ultimate ownership not yet settled

FREIGHT CARS

The **Baltimore & Ohio** has requested bids on 1,000 50-ton steel box cars and 1,000 70-ton steel gondola cars.

The **Canadian Pacific** has ordered 1,000 50-ton 40½-ft. all-steel box cars, 700 of which will be built by the National Steel Car Corporation, Hamilton, Ont., and 300 by the Eastern Car Company, Trenton, N. S. Delivery of the cars will begin in late November.

completed in April of that year. The 5,000 new cars are in addition to the 10,000 cars the road is leasing through the Equitable Life Assurance Society, as reported in *Railway Age* of May 20, page 224. The Pennsylvania's program of new freight equipment now includes 21,989 gondola, box and covered hopper cars. In addition, its heavy repair and reconditioning schedule covers 17,000 cars, which, beginning August 1, will come out of shop at the rate of 3,000 a month.

The **St. Louis-San Francisco** has ordered 500 PS-1 50-ton box cars from the Pullman-Standard Car Manufacturing Company.

The **Seaboard Air Line** has ordered 1,225 freight cars costing an estimated $6,560,000. Included in the order are 500 box cars, 200 covered hopper cement cars and 100 covered phosphate rock cars, all to be built by the Pullman-Standard Car Manufacturing Company at its Bessemer, Ala., plant; 400 gondola cars to be built by the Bethlehem Steel Company at its Johnstown, Pa., plant, and 25 caboose cars ordered from the International Car & Railway Equipment Manufacturing Co. of Kenton, Ohio. First deliveries of these cars are expected in December, with completion scheduled for the early part of 1951.

The **Union Pacific** has placed orders for a total of 3,500 freight cars. The orders constitute an expansion of the road's 1950 equipment program, and bring to a total of 7,500 the number of cars ordered since January 1. The American Car & Foundry Co. will build 1,000 50-ton box cars at its St. Louis, Mo., plant, and the General American Transportation Corporation will build 1,000 gondola cars at Chicago. The remaining cars will be ordered from the railroad's own shops, including 1,000 50-ton box cars and 500 flat cars. To speed construction of the latter cars, the road has expanded its shop forces at Omaha, Neb., Grand Island and Denver, Colo. The new equipment will cost approximately $20,800,000, which is in addition to the $23,000,000 car building program announced earlier in the year.

PASSENGER CARS

St. Louis Car Building 200 Chicago Rapid Transit Cars

With the addition of a group of 70 cars ordered on July 27, the Chicago Transit Authority now has on order from the St. Louis Car Company a total of 200 multiple-unit electric rapid transit cars, which will cost nearly $7,729,000. Expected for delivery by May, 1951, the new cars will be placed in service on the city's subway-elevated rapid transit system.

The cars will be of all-metal construction, 48 ft. in length, and will seat 51 passengers each. Four 55-hp. motors, mounted on "P.C.C."-type trucks, will drive the cars at a top speed of 45 m.p.h., and will permit acceleration at the rate of three m.p.h. per second. A dual braking system, featuring both dynamic motor brakes and automotive-type drum brakes, will provide similar performance in deceleration. The cars will be operated in semi-permanently coupled pairs, with a motorman's cab at the far end of each car only. Interiors will be insulated against noise, and will have a thermostatically controlled, forced air heating and ventilating system.

LOCOMOTIVES

The **Baltimore & Ohio** has completed arrangements for leasing 38 Diesel-electric locomotives from the Equitable Life Assurance Society. The Baldwin Locomotive Works will build all 38 units, 14 of which will be 1,600-hp. freight units and 24 1,000-hp. switching units. Six of the switchers have already been delivered and the balance of the 38 are scheduled to be delivered by November.

The **Louisville & Nashville** is reported to have ordered 41 Diesel-electric locomotives for yard service and road freight service, principally between Louisville, Ky., Atlanta, Ga., Evansville, Ind., East St. Louis, Ill., and Nashville, Tenn. The type of units ordered, and the builders, were not available when this issue went to press, but the total cost of the new units was placed at about $6,500,000. Deliveries are expected to begin in October and to be completed by the end of the year.

The **St. Louis-San Francisco** has purchased 25 general-purpose locomotives of 1,500 hp. and five switchers of 1,200 hp. from the Electro-motive Division of General Motors Corporation, and four switchers of 1,200 hp. from Fairbanks, Morse & Co.

The **Seaboard Air Line** has placed orders amounting to approximately $9,600,000 for 66 new Diesel-electric locomotive units. The order involves 30 1,500-hp. road-switchers to be built by the Electro-Motive Division of General Motors Corporation; 20 1,600-hp. road-switchers to be built by the American Locomotive-General Electric Companies; six 2,250-hp. road passenger "A" units, also to be built by Electro-Motive, and ten 1,000-hp. yard switchers ordered from the Baldwin Locomotive Works. Deliveries are scheduled to begin in October and be completed by February, 1951. Orders for 60 Diesel-electric locomotive units were placed by the Seaboard last month. (See *Railway Age* of July 1, page 84.) When those and the locomotives covered by the present orders are received, the road's ownership of Diesel power will be boosted to 395 units.

The **Tennessee Coal, Iron & Railroad Co.** has ordered two 1,600-hp. Diesel-electric all-service locomotives and five 1,200-hp. D.-E. switching locomotives from the Baldwin Locomotive Works.

The **Youngstown Sheet & Tube Co.** has ordered three 750-hp. Diesel-electric switching locomotives from the Baldwin Locomotive Works.

The **Chicago, Milwaukee, St. Paul & Pacific** has purchased from the General Electric Company 12 electric locomotives for use in electrified territory between Harlowton, Mont., and Avery, Idaho. The locomotives were built for export to Russia but were not delivered due to international developments after the order was placed. They are designed to operate on 3,300 volts d.c., but will require certain modifications as to gage and coupler height before they can be placed in service. The Milwaukee will undertake the necessary modifications, and in addition, will equip at least two of the locomotives with steam generators to permit their use in passenger service.

IRON & STEEL

The **Chicago, Indianapolis & Louisville** is inquiring for 11 track mi. of 115-lb. rail to replace the last segment of 90-lb. rail remaining in its Chicago-Louisville main line.

The **St. Louis-San Francisco** has ordered a total of 27,500 tons of rail from the Tennessee Coal & Iron Co.

SUPPLY TRADE

AlexanderMilburn, Inc., 1231-1245 Ridgely street, Baltimore 30, Md., has been organized to manufacture and market the Milburn line of oxy-acetylene cutting and welding apparatus, regulators for oxygen, acetylene and other gases, accessories and supplies, and portable carbide lamps. Since 1945, Milburn equipment has been marketed by the Black Manufacturing Company, Parkton, Md.

A. Paul Selby has been appointed assistant to the sales vice-president, **United States Steel Corporation.** Mr. Selby has been assistant general manager of sales of the Carnegie-Illinois Steel Corporation, a U. S. Steel subsidiary, since October, 1945.

The **Superheater Company,** Division of **Combustion Engineering-Superheater, Inc.,** has appointed **Bard Browne,** vice-president, to direct activities of the western district sales department and the consolidated eastern and western service departments, in addition to his other duties.

B. C. MacDonald & Co., Arcade building, St. Louis 1, Mo., has been

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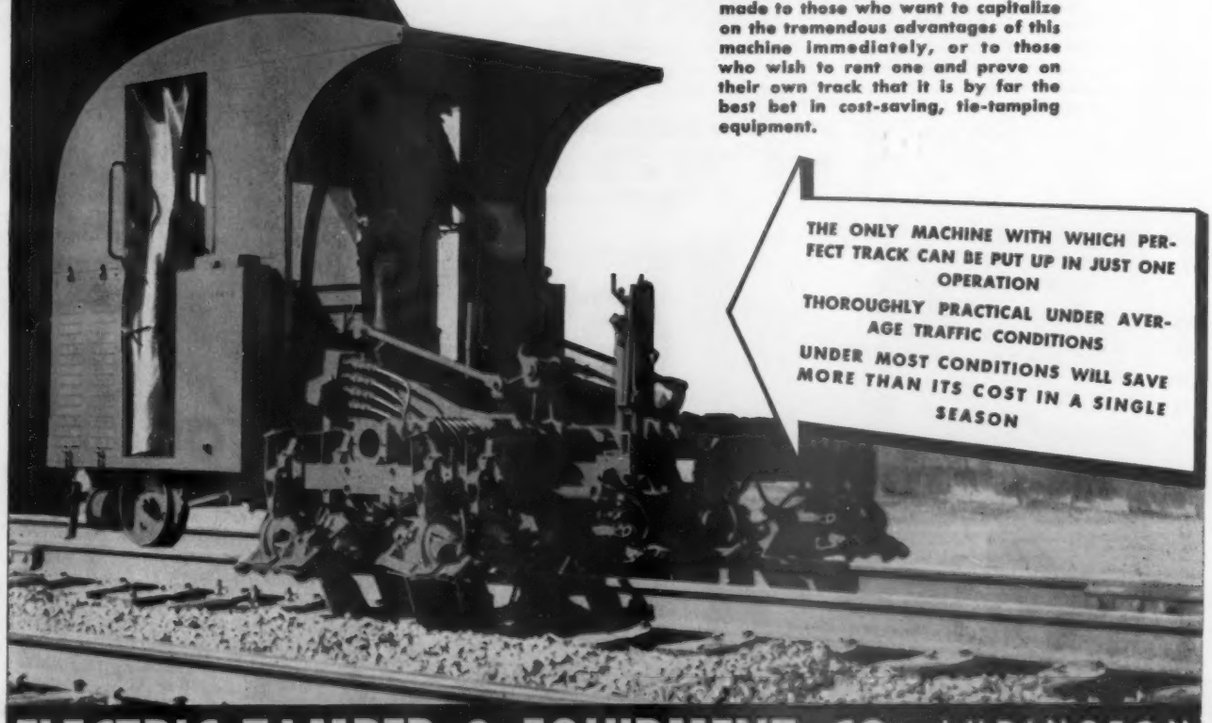

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UNDER MOST CONDITIONS WILL SAVE MORE THAN ITS COST IN A SINGLE SEASON

ELECTRIC TAMPER & EQUIPMENT CO. LUDINGTON MICHIGAN

appointed railway sales representative for Nicad Diesel starting batteries by the **Nickel Cadmium Battery Corporation.**

Karl J. Learey, formerly district manager of the general products division of the **Goodyear Tire & Rubber Co.,** at Atlanta, Ga., has been appointed manager of Airfoam sales, with the same headquarters, succeeding **R. C. Hogan,** resigned. Mr. Learey was born in Findlay, Ohio, and was

Karl J. Learey

graduated from Ohio Wesleyan University. He joined Goodyear's Airfoam sales organization in 1948 and was assigned to the Chicago district. In February of this year he was sent to Atlanta as district manager for Airfoam, Pliofilm, Vinylfilm and flooring sales.

E. F. Sheehan, assistant manager of the renewal parts department of the **Baldwin Locomotive Works,** has been promoted to manager of the department, with complete charge of all activities connected with renewal parts for both Diesel and steam locomotives.

E. F. Sheehan

Mr. Sheehan received his early training in the railroad field with the Lima Locomotive Works (now part of the Lima-Hamilton Corporation) and the Norfolk & Western. He joined Baldwin in March, 1939, and served successively as assistant to works manager, assistant to vice-president—operations, coordinator of purchases and stores, and assistant manager, renewal parts department.

Grant A. Colton, formerly assistant manager of the **Golden-Anderson Valve Specialty Company,** Pittsburgh, Pa., has been elected vice-president and general manager.

The **Union Steel Products Company,** Albion, Mich., has appointed **William O. Murphy** as sales manager of its materials handling equipment division, succeeding **Lawrence**

William O. Murphy

F. Emigholz, who has resigned. Mr. Murphy will direct the company's sales of steel-wire pallets and palletainers and other materials handling equipment. He formerly was associated with Byrne Doors, Inc., Truscon Laboratories and Detroit Edison.

Jean St. Henri and **Kenneth Mulkey,** members of the service department of **McCulloch Motors,** Los Angeles, Cal., have been promoted to

Jean St. Henri

factory sales representatives. Mr. St. Henri joined McCulloch in 1947; before that time he was associated with the Union Pacific and with Reed Production Tools. He served four and a half years in the Royal Canadian Air

Kenneth Mulkey

Force during World War II. Mr. Mulkey became a member of the McCulloch staff in 1948, before which he was employed by the Salsbury Motor Company, the Briggs & Stratton Engine Co., and the Waukesha Motor Company.

Wm. L. Robinson, formerly general manager of the southwestern territory of the **Republic Carloading & Distributing Co.,** has been elected vice-president in charge of the southwestern territory. He has been associated with the company since 1944.

C. E. Houston has been appointed manager of the new retail store recently opened by the **Hyster Company** in Peoria, Ill., for sale of its industrial trucks.

OBITUARY

Otto R. Hildebrant, in charge of midwest railroad sales for the K. W. Battery Company, with headquarters at Chicago, died on July 25 in Norfolk, Va., after a short illness, at the age of 58. Mr. Hildebrant had been associated with the company for the past 10 years and with the industry for 20 years prior to that time.

CAR SERVICE

I.C.C. Service Order No. 856, effective from August 1 until February 1, 1951, unless otherwise modified, provides that following the expiration of free time, Saturdays and Sundays are to be included in computing debits and demurrage charges on all freight cars. This order applies to cars "whether or not they are subject to monthly average agreement or any other regular settlement period." The order was issued because undue delays have caused

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"77's really a smooth operation," says engineer Jess Spencer, with 35 years on the power end of KCS trains.

Fireman Chleo Grubbs' "whiskers" are short—9 years—"but there's nothing short about 77 except its schedules," he'll tell you.

Powell Anderson, brakeman, has learned a lot of railroading in 4 years—and he concentrates it all on 77.

Conductor Otis Anderson—36 years—speaking: "The shipper is king, so we strive to do his bidding!"

Brakeman Earl Jones—another 9-year man—has found all KCS trains fast and dependable, but "77 gets every ounce of 'oomph' out of her crews."

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anywhere between Kansas City and the Gulf, KCS 77 will help keep it!

On KCS Lines we know what shippers want . . . and we have what it takes to give it to them—solid roadbed, heavy rail, the latest in diesel locomotives, fast schedules and an operating force geared for top performance.

It's a combination that clicks—just try it!

KANSAS CITY SOUTHERN *Lines*

J. W. SCOTT
Vice-President—Traffic,
Kansas City, Mo.

a shortage of equipment and have diminished the movement of cars.

I.C.C. Service Order No. 857, effective July 28 through September 14 unless otherwise modified, authorizes use of two refrigerator cars of BREX, WFEX and FGEX ownership in lieu of one box car ordered for transportation of fruit and vegetable containers originating and terminating in Pennsylvania, Delaware, Maryland and New Jersey.

FINANCIAL

Atlantic Coast Line.—*Bond Refunding Offer Terminated.*—This company's modified offer of exchange of its first consolidated mortgage 4 per cent bonds, due July 1, 1952, for new general mortgage 4 per cent bonds, series A, due March 1, 1980, bearing interest at the rate of 4½ per cent to September 1, 1952, and 4 per cent thereafter to maturity, was terminated on July 26. As of that date, 1,082 holders, with aggregate holdings of $27,536,000 of first consolidated bonds, representing 54.28 per cent of the $50,724,000 of such bonds previously outstanding, had assented to the exchange. (See *Railway Age* of April 15, page 71, and June 10, page 84.)

Canadian National.—*Operation of Temiscouata.*—In accordance with legislation passed by the Canadian Parliament in November, 1949, the Dominion government has purchased for $480,000, and turned over to the Canadian National for operation, the Temiscouata Railway in southeastern Quebec. The Temiscouata extends from the St. Lawrence river at Riviere du Loup, Que., southeasterly to Connors, N. B., 113 mi. It connects with the C. N. at Riviere du Loup and at Edmundston, N. B., and with the Canadian Pacific at the latter point. As of December 31, 1948, the latest year for which complete official figures are available, the Temiscouata owned 7 locomotives and 116 cars of all types. It handled, in 1948, 357,964 revenue passenger-miles and 6,556,465 revenue ton-miles; had gross operating revenues of $477,553; operating expenses of $460,940; net operating revenues of $16,613; and net corporate loss, after taxes and rentals, of $157. Built largely by British capital, and opened for operation in 1889, the line never has been financially successful. No dividends have been paid since issue on its $1 million of capital stock, and no interest since 1930 on its $2,856,336 of bonds. Its current assets were valued, at the end of 1948, at $138,288, and its current liabilities at $24,037.

Rutland.—*Reorganization.*—A new Rutland Railway corporation was officially chartered in Vermont on July 28, to take over existing lines and all railroad property of the Rutland Railroad, which, as noted in the *Railway Age* of July 29, page 55, has applied for authority to consummate the reorganization plan approved by the I. C. C. on December 11, 1946. (See *Railway Age* of December 28, 1946, page 1093.) Temporary directors of the new railway corporation include William E. Navin, of Rutland, Vt., present trustee of the railroad; Gardner A. Caverly, Ascutney, Vt.; Irwin K. French, Middlebury, Vt.; William H. Adams and Charles P. McDevitt, Proctor, Vt.; M. Scott Gooding and Francis C. Sweeney, Rutland; and Charles D. Peet and Emmet McCaffery, New York. Messrs. Caverly and French, with Wallace M. Fay, of Proctor, are reorganization managers.

New Securities

Application has been filed with the I.C.C. by:

CHESAPEAKE & OHIO.—To assume liability for $5,370,000 of equipment trust certificates to finance in part 25 Diesel-electric locomotives out of a total of 34 such locomotives to be acquired. Total cost of the 25 locomotives is estimated at $6,772,462, while the entire 34 would cost approximately $10,560,000. The locomotives that would be acquired under the equipment trust were listed as follows:

	Description and Builder	Estimated Unit Cost
9	4,500-hp. road freight locomotives, each consisting of 2 "A" units and 1 "B" unit (Electro-Motive Division, General Motors Corporation)	$448.894
16	1,600-hp. transfer locomotives (Baldwin Locomotive Works)	170,776

The balance of nine locomotives would be financed as follows: Seven 4,500-hp. road freight locomotives, from Electro-Motive, by a conditional sale agreement; and two 1,600-hp. transfer locomotives, from Baldwin, by conveying them to a 1948 equipment trust issue to replace other equipment which is no longer needed and is being sold.

The present certificates, to be dated September 1, would mature in 30 semiannual installments of $179,000 each, beginning March 1, 1951. They would be sold by competitive bids, with the interest to be set by such bids.

Upon delivery these locomotives would be used to Dieselize the C. & O.'s Chicago division and switching and transfer service in the Cincinnati terminal area. The road's application estimated that annual savings of $3,870,000 would result from the change.

SEABOARD AIR LINE.—To assume liability for $3,570,000 of series H equipment trust certificates to finance in part 14 Diesel-electric locomotives and 500 freight cars. Estimated total cost of the new equipment is $4,783,511.

	Description and Builder	Estimated Unit Cost
14	1,000-hp switching locomotives (Baldwin Locomotive Works)	$97,500.00
300	70-ton all steel covered hopper phosphate cars (Pullman-Standard Car Manufacturing Company)	6,901.98
200	70-ton all steel covered hopper phosphate cars (Pullman-Standard)	6,583.84

The certificates, to be dated September 1, would mature in 15 annual installments of $238,000 each, beginning September 1, 1951. They would be sold by competitive bids, with the interest rate to be set by such bids.

TRONA.—To issue 20,000 shares of new common stock, par value $25, and 3,500 shares of new 4 per cent preferred stock, par value $100. The common stock would be divided as follows: 6,000 shares to be issued in exchange for present outstanding capital stock, consisting of 1,500 shares of $100 par value; and 14,000 shares to be issued as a stock dividend to present stockholders. The new preferred stock would also go as a stock dividend. The road's application said it has assets of $1,753,009, with no funded debt, whereas its capitalization is only $150,000. The American Potash & Chemical Corp. holds all of the road's stock.

Division 4 of the I.C.C. has **authorized:**

CHICAGO, ROCK ISLAND & PACIFIC.—To assume liability for $2,352,000 of series H equipment trust certificates to finance in part 34 Diesel-electric locomotives costing an estimated $3,138,393. (See RAILWAY AGE of July 1, page 85). The certificates, to be dated August 1, will mature in 24 semiannual installments of $98 000 each, beginning February 1, 1951. The Division 4 report approved a selling price of 99.47 with interest at 2⅛ per cent—the bid of the First National Bank of Chicago—which will make the average annual cost of the proceeds approximately 2.22 per cent. The certificates were not publicly reoffered.

Dividends Declared

Alabama & Vicksburg.—3%, semiannual, payable October 2 to holders of record September 8.

Atlanta & Charlotte Air Line.—$4.50, semiannual, payable September 1 to holders of record August 19.

Atlanta & West Point.—$1, payable August 1 to holders of record July 24.

Copper Range.—5% non-cumulative preferred, $5, payable August 10 to holders of record August 1.

Nashville, Chattanooga & St. Louis.—75¢, payable September 1 to holders of record August 9.

Reading.—4% non-cumulative 1st preferred, 50¢, quarterly, payable September 14 to holders of record August 24.

Southern.—Common, 75¢, payable September 15 to holders of record August 15.

Vicksburg, Shreveport & Pacific.—Common, 2½%, semiannual; preferred, 2½%, semiannual, both payable October 2 to holders of record September 8.

Western of Alabama.—$3.50, payable August 1 to holders of record July 24.

Security Price Averages

	August 1	Last week	Last year
Average price of 20 representative railway stocks	46.50	46.37	37.51
Average price of 20 representative railway bonds	94.19	93.21	85.47

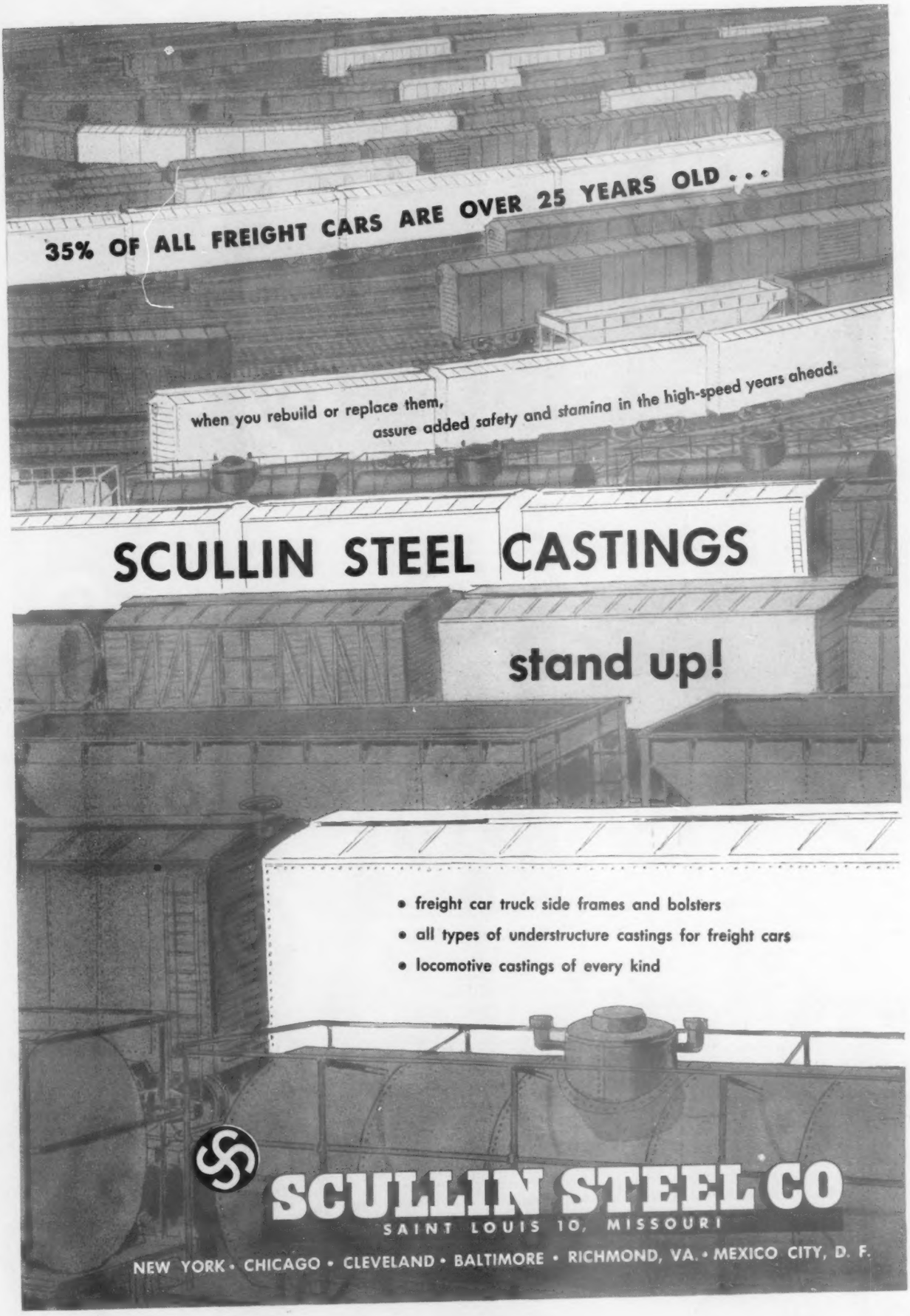
RAILWAY OFFICERS

EXECUTIVE

J. E. Gilliland, whose appointment as assistant to the president in charge of development of the St. Louis-San Francisco, with headquarters at St. Louis, Mo., was reported in *Railway Age* recently, is a native of Texas. He began his railroad career in 1923 with the Atchison, Topeka & Santa Fe as an office boy, and five years later

J. E. Gilliland

joined the Missouri Pacific's executive department. In 1942 he joined the Terminal Railroad Association of St. Louis as trainmaster, and in 1946 became president of the Alabama, Tennessee & Northern (now part of the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Frisco). Mr. Gilliland left the A. T. & N. in April of this year to become executive general agent of the Frisco at Springfield, Mo., the post he held until his recent appointment.

FINANCIAL, LEGAL & ACCOUNTING

Paul F. Robinson, attorney of the Delaware & Hudson, has been promoted to general attorney.

Joseph H. Miller, general solicitor of the Wabash, has been promoted to general counsel, with headquarters as before at St. Louis, Mo., succeeding **Joseph A. McClain, Jr.,** who has resigned. Advanced to succeed Mr. Miller is **Richard B. Elster,** general attorney and commerce counsel at St. Louis. Other appointments in the law department of the Wabash are: **Albert E. Schoenbeck,** as general attorney; **Ray T. Sample,** as assistant general counsel, and **Eugene S. Davis** and

Joseph H. Miller

Gilbert A. Schuessler, as assistant general attorneys.

Mr. Miller was born in Hannibal, Mo., on June 17, 1890, and was graduated from St. Louis University Law School in 1924 with the degree of master of law. His service in the Wabash law department began in 1907 in a clerical capacity before he studied law. Subsequently he held various positions in that department, including general attorney, and in 1940 he became general solicitor.

Charles R. Fichtenger, auditor of disbursements of the Norfolk & Western, has been appointed assistant comptroller, with headquarters as before at Roanoke, Va. **Frank E. Eakin,** chief clerk to the comptroller, has been appointed auditor of disbursements. Mr. Fichtenger was first employed in the Roanoke shops of the N.&W. in May, 1916, and worked three summers while attending school. He became a permanent employee in May, 1919, and shifted to the accounting department as a clerk in June, 1921. There he served successively as a special agent to the comptroller, disbursement agent, chief disbursement agent and assistant to the comptroller, becoming auditor of disbursements in June, 1945.

Mr. Eakin joined the N.&W. in October, 1927, as a messenger in the office of the auditor of passenger accounts, becoming a clerk in the comptroller's office a few weeks later. He then served successively as a stenographer, railroad retirement clerk and secretary to the comptroller. He was promoted to assistant chief clerk in the office of the comptroller in July, 1942, and became chief clerk in September, 1945.

OPERATING

F. W. McCabe, whose promotion to superintendent of the Northern Pacific's Fargo division, with headquarters at Fargo, N. D., was reported in *Railway Age* of July 8, was born in Menasha, Wis., on December 6, 1887. Mr. McCabe attended Cream City Business College, Milwaukee, Wis., and entered railroad service in February, 1904, at Abbotsford, Wis., with the Wisconsin Central (now part of the Minneapolis, St. Paul & Sault Ste. Marie). After holding various positions with that road, in September, 1910, he joined the N. P. at Minneapolis, Minn., as switchman.

F. W. McCabe

Five years later he became yardmaster at Northtown, Minn., and in 1921 was appointed assistant general yardmaster at that point, being advanced in 1929 to general yardmaster at Missoula, Mont. He held the same position from 1935 to 1941 at Auburn, Wash., and Seattle, and subsequently became terminal trainmaster at the latter point. In July, 1942, Mr. McCabe was promoted to assistant superintendent on the Tacoma division, in which capacity he remained until September, 1945, when he returned to Seattle as trainmaster. He was appointed assistant superintendent of Seattle in January, 1947, the post he held before his recent promotion. The picture of Mr. McCabe, above, was incorrectly reproduced on page 63 of the *Railway Age* of July 22 in connection with a biography of John F. Likarish, recently promoted to master car builder of the Great Northern.

H. H. DeBerry, whose appointment as assistant general superintendent transportation of the St. Louis-San Francisco, with headquarters at Springfield, Mo., was reported in the *Railway Age* of July 8, was born on April 16, 1900, at Stoutland, Mo. Mr. DeBerry entered railroad service in 1916 with the Frisco as a station helper. His subsequent positions included

H. H. DeBerry

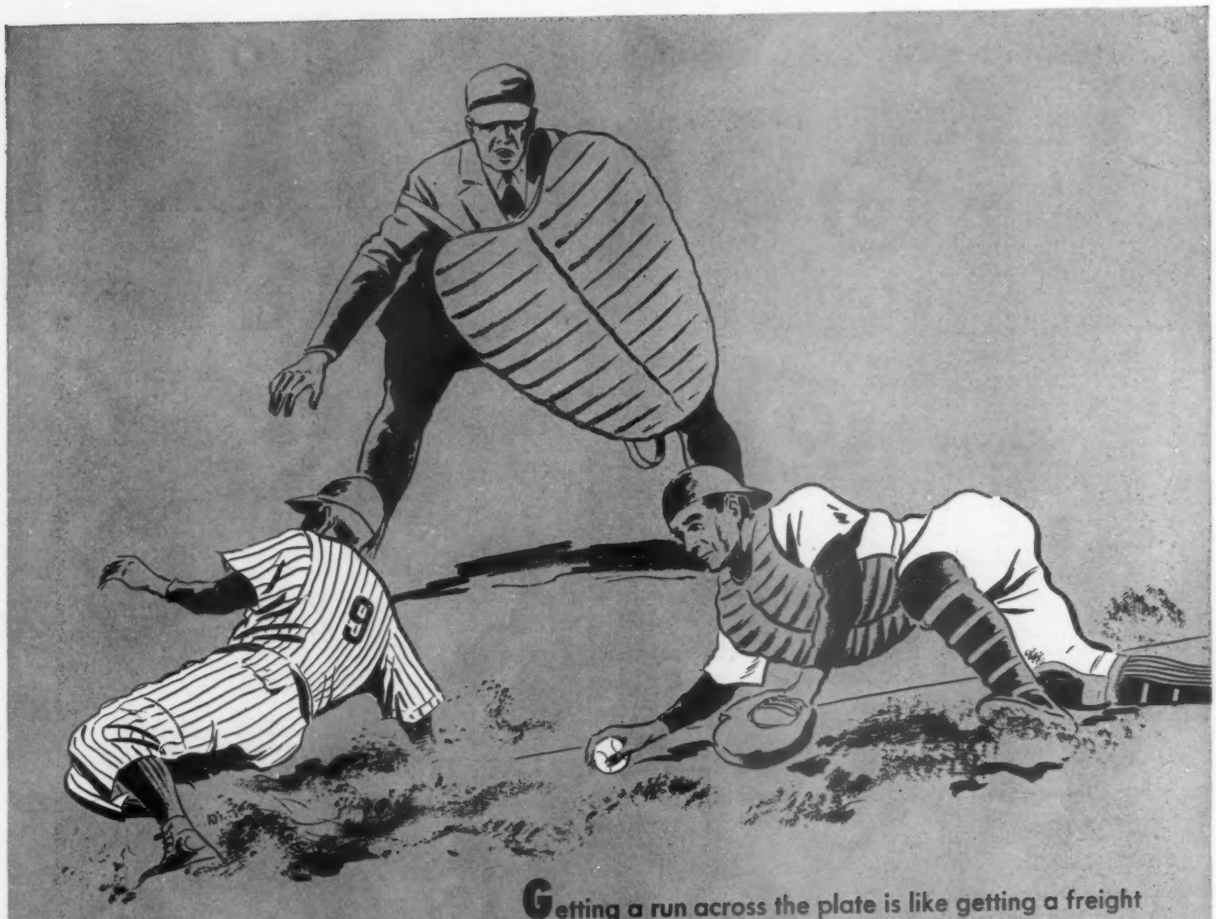
those of agent, agent-telegrapher, dispatcher and telegrapher, trainmaster and assistant superintendent. In August, 1947, he was advanced to superintendent of the River division, and in September, 1948, was transferred in the same capacity to the Southern division, at Memphis, Tenn. Mr. DeBerry held the latter post prior to his recent appointment.

Walter J. Barnes, assistant to general manager of the New York Central, Lines Buffalo and East, has been appointed assistant superintendent of the Syracuse division, with headquarters as before at Syracuse, N. Y. **Sylvester H. Denison,** supervisor of locomotive distribution at Buffalo, N. Y., and **Gregory W. Maxwell,** trainmaster at Buffalo, have been appointed assistants to general manager at Syracuse. **Frederick I. Doebber,** trainmaster at Indianapolis, Ind., has been transferred to Buffalo.

S. P. McDonough has been appointed acting superintendent of the Boston division of the New York, New Haven & Hartford at Boston, Mass., succeeding **Colonel W. S. Carr,** who has been furloughed for active overseas duty with the United States Army.

Leslie R. Smith, who was recently promoted to superintendent of the Canadian Pacific at Penticton, B. C., first entered C. P. service in 1937 as an operator at Revelstoke, B. C. He later served at Winnipeg, Man., in the same capacity and also as traveling car service agent, and at Moose Jaw, Sask. and

(Continued on page 85)



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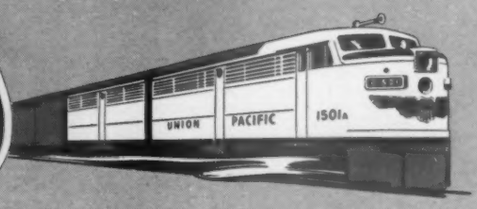


BE SPECIFIC: *Ship* UNION PACIFIC

OPERATING REVENUES AND OPERATING EXPENSES OF CLASS I STEAM RAILWAYS

Compiled from 128 monthly reports of revenues and expenses representing 132 Class I steam railways

(Switching and Terminal Companies Not Included)

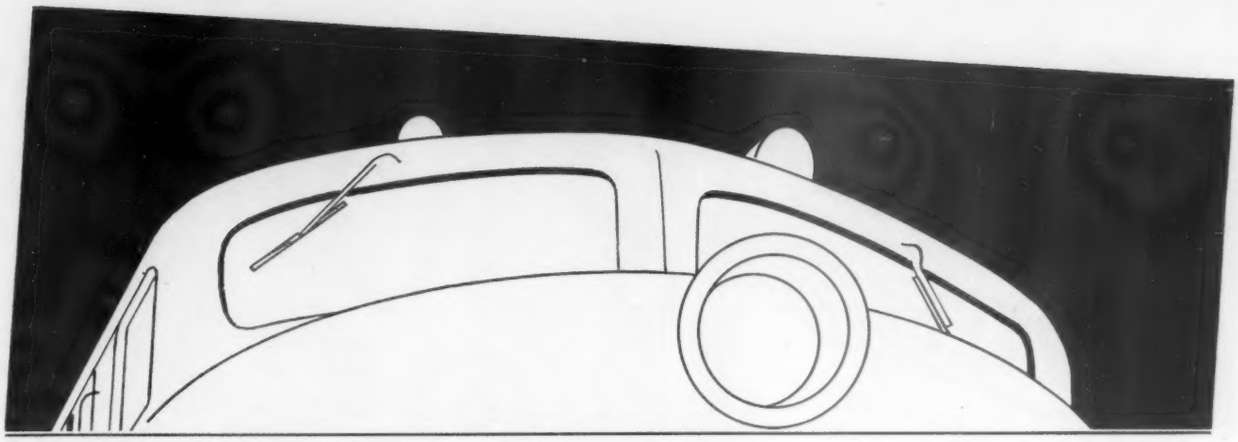
FOR THE MONTH OF MAY 1950 AND 1949

Item	United States		Eastern District		Southern District		Western District	
	1950	1949	1950	1949	1950	1949	1950	1949
Miles of road operated at close of month	226,472	226,660	53,353	53,482	46,113	46,040	127,006	127,138
Revenues:								
Freight	$634,747,481	$615,941,514	$234,950,477	$238,093,751	$135,249,207	$130,255,248	$264,547,797	$247,592,515
Passenger	56,800,730	67,858,393	30,724,714	35,870,366	7,957,889	10,249,566	18,118,127	21,738,461
Mail	17,899,053	19,199,130	6,149,823	6,866,877	3,333,467	3,439,178	8,415,763	8,893,075
Express	6,049,346	6,011,116	1,642,620	1,419,119	970,612	1,020,382	3,436,114	3,571,615
All other operating revenues	29,909,811	32,078,771	12,930,023	14,648,498	5,171,628	5,400,113	11,808,160	12,030,160
Railway operating revenues	745,406,421	741,088,924	286,397,657	296,898,611	152,682,803	150,364,487	306,325,961	293,825,826
Expenses:								
Maintenance of way and structures	112,747,729	121,021,620	38,873,123	43,973,528	23,346,796	22,951,842	50,527,810	54,096,250
Depreciation	10,839,386	10,582,164	4,517,202	4,444,210	1,964,326	1,852,608	4,357,858	4,285,346
Retirements	1,448,204	678,997	761,621	235,506	194,305	171,483	492,278	272,008
Deferred maintenance	*64,618	*360,726	.....	*75,180	*59,265	*104,806	*5,353	*180,740
Amortization of defense projects	151,739	151,462	15,858	15,922	46,339	46,252	89,542	89,288
Equalization	*5,852,925	*7,854,874	*2,955,375	*4,027,797	*619,874	*1,225,919	*2,277,676	*2,601,158
All other	106,225,943	117,824,597	36,533,817	43,380,867	21,820,965	22,212,224	47,871,161	52,231,506
Maintenance of equipment	139,573,371	142,571,084	58,298,320	59,462,422	27,826,107	29,369,690	53,448,944	53,738,972
Depreciation	24,719,658	23,337,577	9,265,715	9,151,427	5,539,320	5,198,392	9,914,623	8,987,758
Retirement	*46,476	*69,424	*5,360	*15,161	*26,085	*22,632	*15,031	*31,631
Deferred maintenance and major repairs	*123,979	*94,883	*74,594	*53,620	*3,426	*6,727	*45,959	*34,536
Amortization of defense projects	1,217,300	1,221,982	451,449	450,933	234,034	238,867	531,817	532,182
Equalization	183,226	279,206	35,514	*18,876	27,603	298,991	120,109	*909
All other	113,623,642	117,896,626	48,625,596	49,947,719	22,054,661	23,662,799	42,943,385	44,286,108
Traffic	16,073,122	16,871,427	5,425,363	5,703,455	3,381,711	3,496,570	7,266,048	7,671,402
Transportation—Rail line	281,186,099	288,330,951	118,375,794	121,876,497	51,955,603	53,911,169	110,854,702	112,543,285
Miscellaneous operations	8,248,908	9,229,467	2,919,577	3,516,931	1,267,241	1,343,690	4,062,090	4,368,846
General	22,737,395	22,845,827	8,585,027	8,798,985	4,865,411	4,784,394	9,286,957	9,262,448
Railway operating expenses	580,566,624	600,870,376	232,477,204	243,331,818	112,642,869	115,857,355	235,446,551	241,681,203
Net revenue from railway operations	164,839,797	140,218,548	53,920,453	53,566,793	40,039,934	34,507,132	70,879,410	52,144,623
Railway tax accruals	80,746,675	69,282,731	28,729,921	25,707,674	20,003,375	17,628,954	32,013,379	25,946,103
Pay-roll taxes	21,830,901	21,678,496	8,987,162	9,011,749	4,174,342	4,147,424	8,669,397	8,519,323
Federal income taxes†	31,370,588	20,856,014	10,024,631	7,195,414	9,926,460	7,933,455	11,419,497	5,727,145
All other taxes	27,545,186	26,748,221	9,718,128	9,500,511	5,902,573	5,548,075	11,924,485	11,699,635
Railway operating income	84,093,122	70,935,817	25,190,532	27,859,119	20,036,559	16,878,178	38,866,031	26,198,520
Equipment rents—Dr. balance	13,754,375	10,069,113	7,657,981	5,041,405	*1,316,875	*1,013,588	7,413,269	6,041,296
Joint facility rent—Dr. balance	3,307,200	3,373,281	1,556,513	1,526,601	501,232	500,636	1,249,455	1,346,044
Net railway operating income	67,031,547	57,493,423	15,976,038	21,291,113	20,852,202	17,391,130	30,203,307	18,811,180
Ratio of expenses to revenues (percent)	77.9	81.1	81.2	82.0	73.8	77.1	76.9	82.3

FOR THE FIVE MONTHS ENDED WITH MAY 1950 AND 1949

Item	United States		Eastern District		Southern District		Western District	
	1950	1949	1950	1949	1950	1949	1950	1949
Miles of road operated at close of month	226,581	226,672	53,369	53,482	46,142	46,041	127,070	127,149
Revenues:								
Freight	$2,886,394,147	$3,006,317,684	$1,084,478,687	$1,167,289,468	$617,124,513	$637,962,073	$1,184,790,947	$1,201,066,143
Passenger	304,481,411	353,022,182	163,674,868	184,701,446	50,004,203	60,364,621	90,802,340	107,956,115
Mail	89,368,464	90,640,275	32,452,327	33,129,465	15,824,063	16,532,941	41,092,074	40,977,869
Express	25,925,618	28,455,680	7,233,479	7,581,068	5,486,011	5,761,508	13,206,128	15,113,104
All other operating revenues	138,355,247	155,488,648	61,449,790	69,816,564	24,338,062	26,834,770	52,567,395	58,837,314
Railway operating revenues	3,444,524,887	3,633,924,469	1,349,289,151	1,462,518,011	712,776,852	747,455,913	1,382,458,884	1,423,950,545
Expenses:								
Maintenance of way and structures	491,253,612	538,396,419	168,963,973	192,388,029	108,126,746	111,342,554	214,162,893	233,765,836
Depreciation	53,958,257	52,846,062	22,532,481	22,227,705	9,709,575	9,261,041	21,716,201	21,357,316
Retirements	4,473,783	4,066,441	1,612,828	1,241,765	929,515	642,998	1,931,440	2,181,678
Deferred maintenance	*1,058,911	*1,237,167	*800,000	*328,422	*92,080	*290,635	*166,831	*618,110
Amortization of defense projects	758,166	743,980	89,670	76,803	231,822	237,347	436,674	429,830
Equalization	9,819,526	2,404,012	5,082,744	1,334,774	5,104,824	2,165,964	*368,042	*1,096,726
All other	423,302,791	479,573,091	140,446,250	168,735,404	92,243,090	99,325,839	190,613,451	211,511,848
Maintenance of equipment	666,924,997	700,705,287	275,397,574	288,435,026	131,209,560	141,486,613	260,317,863	270,783,648
Depreciation	121,187,651	112,760,218	44,863,014	43,557,196	27,274,653	25,298,035	49,049,984	43,904,987
Retirements	*214,563	*330,964	*27,062	*65,648	*103,292	*62,928	*84,209	*202,388
Deferred maintenance and major repairs	*8,666,159	*676,631	*8,383,804	*347,750	*24,879	*187,811	*257,476	*141,070
Amortization of defense projects	6,106,947	6,110,344	2,257,505	2,254,857	1,188,045	1,194,412	2,661,397	2,661,075
Equalization	298,245	1,182,080	150,886	6,194	1,088,428	1,088,437	*941,069	87,449
All other	548,212,876	581,660,240	236,537,035	243,030,177	101,786,605	114,156,468	209,889,236	224,473,595
Traffic	79,285,561	82,541,134	26,784,356	28,092,618	16,671,069	17,432,763	35,830,136	37,015,753
Transportation—Rail line	1,372,933,868	1,478,612,295	584,768,284	625,628,775	254,998,417	276,002,914	533,167,167	576,980,606
Miscellaneous operations	43,203,196	50,277,370	16,016,476	19,050,820	6,987,662	8,002,123	20,199,058	23,224,427
General	111,777,379	116,651,691	43,042,003	45,250,769	23,797,040	24,764,806	44,938,336	46,636,116
Railway operating expenses	2,765,378,613	2,967,184,196	1,114,972,666	1,199,746,037	541,790,494	579,031,773	1,108,615,453	1,188,406,386
Net revenue from railway operations	679,146,274	666,740,273	234,316,485	262,771,974	170,986,358	168,424,140	273,843,431	235,544,159
Railway tax accruals	353,501,745	346,728,687	121,370,148	129,410,134	86,252,754	85,061,208	145,878,843	132,257,345
Pay-roll taxes	103,150,933	107,265,721	42,192,179	44,215,150	19,718,927	20,818,434	41,239,827	42,232,137
Federal income taxes†	115,380,693	106,206,417	30,545,610	36,184,649	37,424,074	36,202,489	47,411,009	33,819,279
All other taxes	134,970,119	133,256,549	48,632,359	49,010,335	29,109,753	28,040,285	57,228,007	56,205,929
Railway operating income	325,644,529	320,011,586	112,946,337	133,361,840	84,733,604	83,362,932	127,964,588	103,286,814
Equipment rents—Dr. balance	56,037,973	50,313,074	26,105,138	23,932,739	*2,431,705	*2,098,256	32,364,540	28,478,591
Joint facility rent—Dr. balance	16,231,665	16,234,843	7,587,508	7,598,395	2,595,624	2,516,424	6,048,533	6,120,024
Net railway operating income	253,374,891	253,463,669	79,253,691	101,830,706	84,569,685	82,944,764	89,551,515	68,688,199
Ratio of expenses to revenues (percent)	80.3	81.7	82.6	82.0	76.0	77.5	80.2	83.5

†Includes income tax and surtax.
*Decrease, deficit, or other reverse item.
Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.



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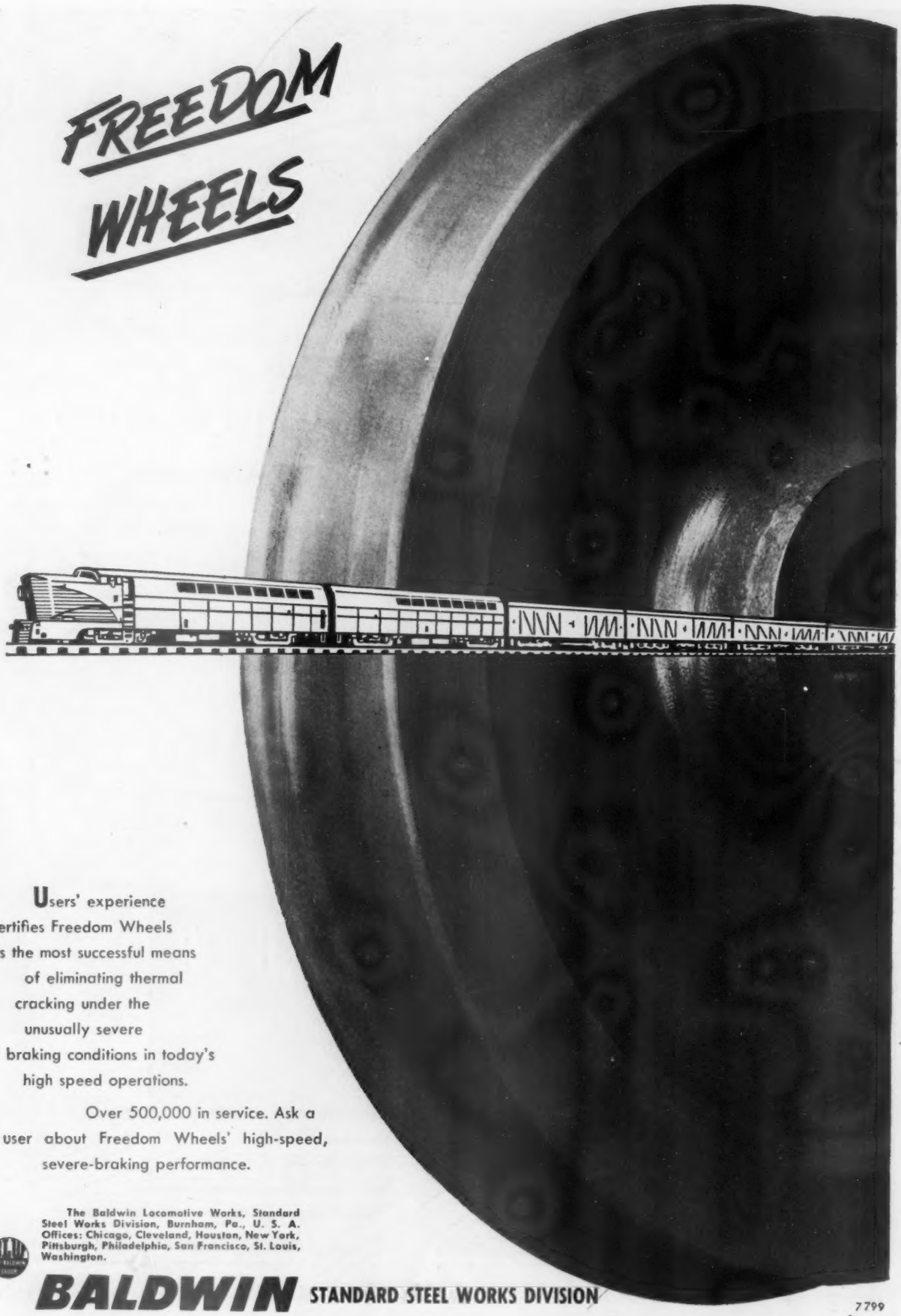

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7799

(Continued from page 80)

Lethbridge, Alta., as assistant superintendent. In September, 1947, he became assistant superintendent at Nelson, B. C., being appointed in 1949 to

Leslie R. Smith

the same post at Cranbrook, B. C., where he was serving at the time of his recent promotion.

TRAFFIC

Clarence B. Riegner, traveling freight agent of the Illinois Central at Buffalo, N. Y., has been promoted to general agent at that point, effective August 1, succeeding **Hugh Hardin,** who will retire after nearly 43 years of service.

R. E. Schaffert, assistant general agent, passenger department, of the Chicago, Milwaukee, St. Paul & Pacific at Seattle, Wash., has been advanced to general agent in the same department at that point, effective August 1, succeeding **Ralph E. Carson,** who will retire on July 31.

The general traffic department offices of the Chicago South Shore & South Bend have been moved to the 14th floor, 330 South Wells st., Chicago 6.

The Chicago & Eastern Illinois, on August 1, will open an office in Toronto, Ont.—the first Canadian office in the history of the road. H. R. Sampson, vice-president, traffic at Chicago, said that **Howard Olmstead,** formerly with the traffic department of the Toronto, Hamilton & Buffalo, has been appointed commercial agent and will be in charge. The new office will be located in the Montreal Trust building at 67 Yonge street.

Russell R. Chavis, whose promotion to general freight agent of the Missouri-Kansas-Texas at St. Louis, Mo., was reported in the *Railway Age* of July 8, was born on July 20, 1902, at Fillmore, Ind. Beginning his railroad career in June, 1918, as an office boy in the freight traffic department of the Katy, Mr. Chavis subsequently held various positions in the freight traffic department of that road, including tariff clerk, division clerk, chief rate

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clerk and commerce clerk. From September, 1942, to October, 1949, he served as chief clerk of the general freight office, later becoming assistant general freight agent. Mr. Chavis was serving in the latter post prior to his promotion.

The Northern Pacific has announced the following changes in its traffic department, effective August 1: **K. W. Wilson,** general agent at Cincinnati, Ohio, transferred to Detroit, Mich., succeeding **Willard Adamson,** furloughed because of ill health after 40 years of service with the road; **M. F. Connor,** traveling freight and passenger agent at Cincinnati, advanced to succeed Mr. Wilson; **W. D. Miller,** general agent at Omaha, Neb., transferred to St. Louis, Mo., succeeding **R. K. Cross,** who is retiring after 45 years of service; **A. G. Anderson,** traveling freight and passenger agent at Omaha, advanced to succeed Mr. Miller; **J. Y. Blumstrom,** general agent at Lewiston, Idaho, appointed district freight and passenger agent at Yakima, Wash., succeeding **T. M. Crawford,** who is retiring after 45 years of service, and **C. W. Meckstroth,** city freight and passenger agent at Seattle, Wash., promoted to replace Mr. Blumstrom.

W. P. Thurston and **G. A. Sandmann, Jr.,** have been appointed special assistants in the coal traffic and development department of the Chesapeake & Ohio at Cleveland, Ohio. Mr. Thurston was formerly general coal traffic agent at Richmond, Va., and Mr. Sandmann was chief clerk in the office of coal traffic and development.

John P. Turner has been appointed district passenger agent of the Wabash at Houston, Tex., in charge of the Houston and San Antonio territory, succeeding **A. J. Winkler,** who has been elected vice-chairman of the Trunk Line-Central Passenger Committee at New York. Mr. Turner has served as city passenger agent and district passenger agent at Kansas City, Mo., since 1939.

Roy A. Vinall, district traffic agent of the Illinois Central at Bloomington, Ill., has been appointed general agent at Minneapolis, Minn., succeeding **David B. Sweeney,** appointed assistant general freight agent at Chicago.

Ansel Cooke has been appointed general agent of the Akron, Canton & Youngstown at Seattle, Wash.

Arthur V. Hitchcock, district freight agent of the Pennsylvania at Chicago, has been transferred to Terre Haute, Ind., succeeding **Oran B. Peterson,** who has been appointed district freight and passenger agent at New Orleans, La.

George Byrne, division freight agent of the New York Central System at Terre Haute, Ind., has retired

after 48 years of continuous service. He is succeeded by **G. T. Sullivan,** industrial agent at Cincinnati, Ohio. **H. F. Meyer** succeeds Mr. Sullivan.

The Chicago Great Western will open a traffic office in Washington, D. C. on August 1. **Glenn E. Soderholm,** general agent, will be in charge of the new office, in rooms 950 and 951 of the Shoreham building.

MECHANICAL

E. Leonard Nylander, whose promotion to superintendent car department of the Chicago, Rock Island & Pacific, with headquarters at Chicago, was reported in the *Railway Age* of July 1, was born on January 29, 1899, in that city. He began his career with the Rock Island in June, 1913, holding various positions until 1932 when

E. Leonard Nylander

he became assistant car foreman at Peoria, Ill. Six years later he was transferred in that capacity to El Reno, Okla., and in 1941 was promoted to car foreman at Little Rock, Ark. Mr. Nylander returned to El Reno in 1944 as chief car inspector, second district, becoming car foreman at Peoria in 1945, in which position he was serving at the time of his recent promotion.

Victor A. Tetu, superintendent of the Great Northern's Jackson street shops at St. Paul, Minn., has retired. He is succeeded by **James Summers,** general foreman at the same shops since 1945.

Walter A. Miller, assistant to mechanical engineer of the Norfolk Southern, has been appointed mechanical engineer, with headquarters as before at Norfolk, Va., succeeding **J. T. Patterson,** who has retired because of physical disability, after 31 years of service with that company. The position of assistant to mechanical engineer has been abolished. Mr. Miller was born on June 20, 1921, and was graduated from North Carolina State College as an electrical engineer in 1944. At that time he entered military service, being attached to the 3110th Signal Service Battalion as a

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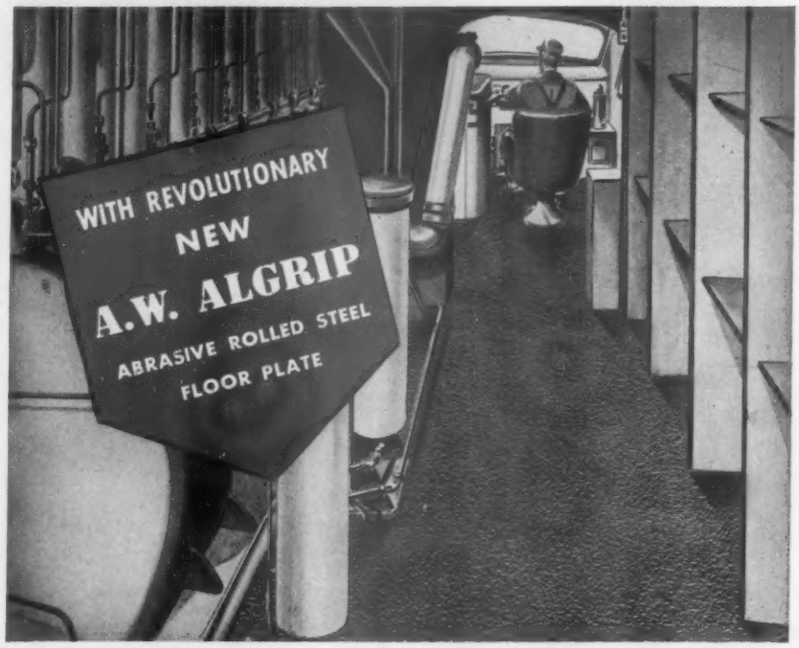

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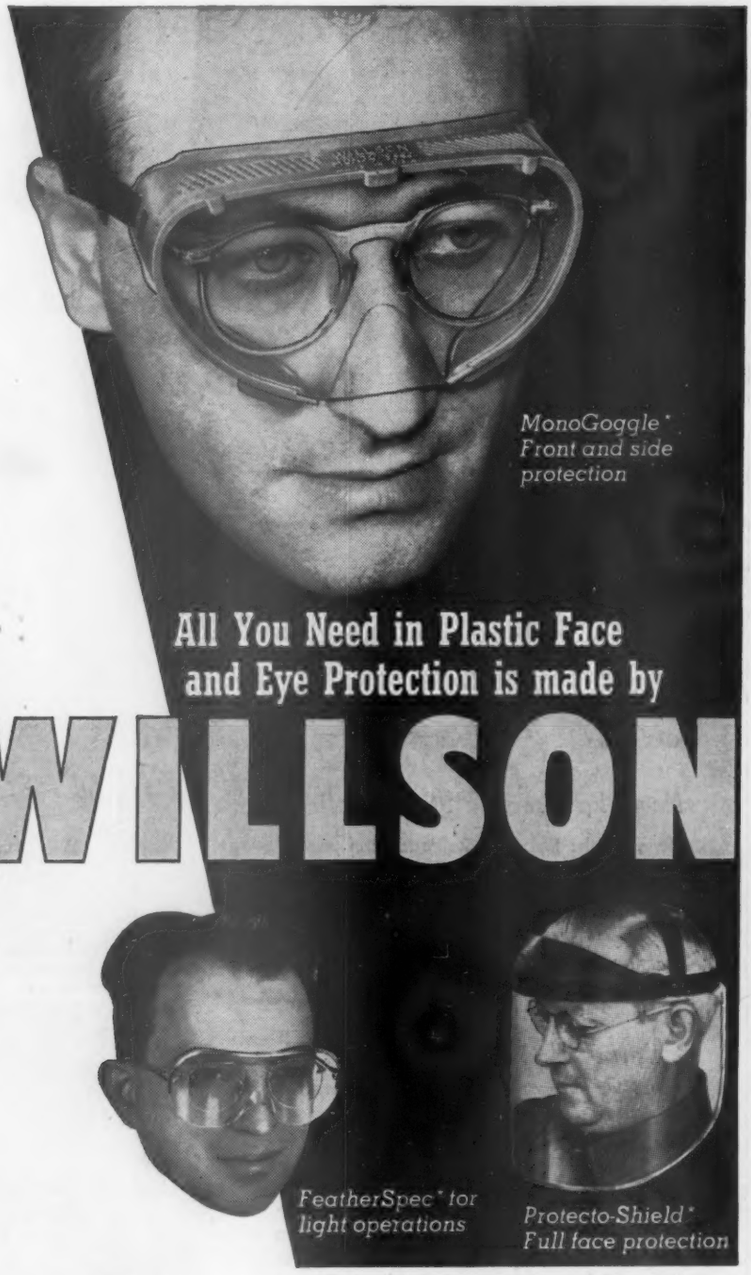

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first lieutenant. After overseas service, he was discharged on September 1, 1946, and joined the N.S. as assistant to mechanical engineer on January 15, 1947.

C. M. Dockstader, superintendent of shops and equipment of the Chicago, Aurora & Elgin, at Wheaton, Ill., has retired after 20 years of service with that road. Mr. Dockstader has spent the past 55 years in the transit and railroad industry. He was born in Canada in 1869, and in 1895 went to Chicago, where he became employed by the Chicago Elevated in its electrical-mechanical department. From 1914 to 1929 he served as inspector of construction of new passenger equipment for several electrically-operated rail lines in the Chicago area, including the Chicago North Shore & Milwaukee, the Chicago South Shore & South Bend, the Chicago Rapid Transit and the C. A. & E. Mr. Dockstader has been in charge of the Wheaton shops of the C. A. & E. since 1930.

The promotion of **John F. Likarish** to master car builder of the Great Northern, as noted in the *Railway Age*

John F. Likarish

of July 22, page 63, was accompanied by a photograph, which, through error, was not that of Mr. Likarish. His likeness is reproduced herewith.

H. M. Nelson, assistant general mechanical superintendent of the Fruit Growers Express, the Western Fruit Express and the Burlington Refrigerator Express, has been appointed general mechanical superintendent of those companies, with headquarters as before at Alexandria, Va., succeeding **E. A. Sweeley,** who has been appointed assistant to president at Washington, D. C.

L. H. Cooper, shop superintendent of the Atlantic Coast Line at Rocky Mount, N. C., has been appointed acting superintendent motive power of the Western division at Fitzgerald, Ga. **R. W. Tonning,** electrical engineer, at Wilmington, N. C., has been appointed acting shop superintendent at Rocky Mount.

Current Publications

VISUAL AIDS

Safetygraph on Falls. 12 pages, 18 in. by 24 in., cartoons and duo-tone photographs. Prepared by the National Safety Council, 425 North Michigan ave., Chicago 11.

Designed as a visual aid for training small groups, this safetygraph shows why falls are one of the most serious of all industrial accident hazards, how they occur and how to prevent them. Consisting of large spiral-bound pages inserted in a leatherette portfolio which opens to form an easel, the safetygraph is designed to be used with the front pages facing the audience with the back bearing a safety talk for the instructor in large, easy-to-read type. The illustrations show the hazards of ladders, scaffolds, makeshift equipment, slippery or cluttered floors, stairways, unprotected openings and horseplay. Information as to the price of this and others in a series of 16 safetygraphs may be obtained through the National Safety Council.

FILMS

I Was Inquisitive. Color, sound. Prepared under Auspices of Railroad Sub-Committee of Coal Producers Committee for Smoke Abatement, Columbus, Ohio.

All railroads operating in Columbus participated in the making of this film, which presents approved practices for smokeless operation of locomotives. It shows in detail how fires should be built in cold engines; maintaining and cleaning of fires; firing an engine in yard service and in road service, and how to build an engine fuel bed with a stoker. Scenes in roundhouses in Columbus showing what has been accomplished by following methods depicted in the film give visual evidence that railroad smoke, even in a railroad center as large as Columbus, can be held down to an irreducible minimum. It is planned to show the film to operating personnel in roundhouses and railroad yards throughout the country as proof of what can be done to keep smoke to a minimum.

Freight Handling Safety. 35-mm. sound slidefilm or 16-mm. sound motion picture, Produced by National Safety Council, 425 N. Michigan ave., Chicago 11. Prices for purchase, preview or rental on request.

A new training film showing how to handle and unload freight safely. In story form, it shows through a character called "Happy Jack" the safe way to open a freight-car door, lower a dock plate into position and anchor it, and how to handle "sleepers." "Happy Jack," who plays the leading role, is a "wrong" guy, from the standpoint of safety, throughout the film. He wears the wrong clothes for the job, does all the wrong things and continually has accidents.

BOOKS

Early British Railways, by Christian Barman. 40 pages, illustrations. Published by Penguin Books, Harmondsworth, Middlesex, England, distributed in the United States

"Red Ball"
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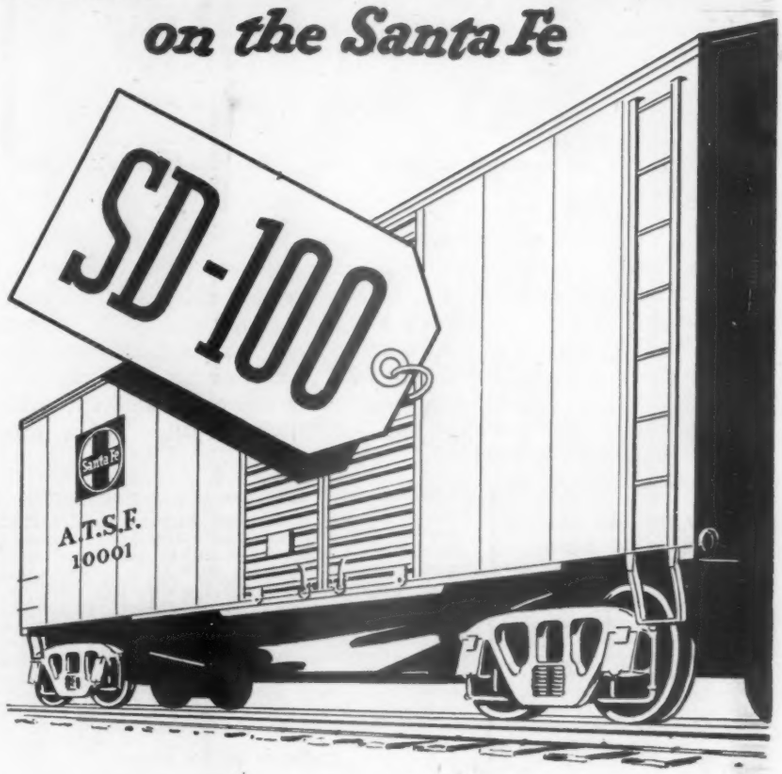
on the Santa Fe



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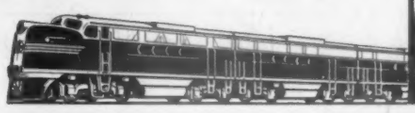

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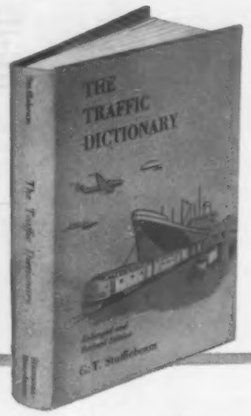

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by Allen Lane, Inc., 3300 Clipper Mill rd., Baltimore, Md. 75 cents.

Mr. Barman discusses the building of early British railways from engineering and architectural viewpionts, telling something of the mixed feelings with which the people accepted their coming. In the rear of the book are 16 reproductions of old prints and drawings, all in color. They include the Royal Albert bridge, the working shaft of the Kilsby tunnel, old Paddington station and the Portico, Euston station.

Citrus Fruit Rates; Development and Economic Appraisal, by Truman C. Bigham and Merrill J. Roberts. 134 pages, maps, tables. Published by the University of Florida Press, Gainesville, Fla. $3.25.

This is a case study in commodity rate making. The authors trace in detail historical development of citrus rates, identify factors which have shaped these rates, and offer an appraisal of the resulting pattern, including a comparison of rates in the three major citrus-producing states—California, Florida and Texas. Their evaluation of the soundness of the rate structure is predicated on its conformity to rational rate-making criteria; and they suggest recommendations for change where existing adjustments and practices appear to depart from these economic standards. Decisions of the Interstate Commerce Commission affecting rate structure and the influence of trucking and water shipments on railroad rates receive careful consideration.

Railway Expenditure and the Volume of Traffic, by W. A. Timmerman. 69 pages. Available in this country from the Manhattan Publishing Company, 225 Lafayette st., New York 12. $4.

This study was submitted as a thesis for the degree of doctor of commerce at the University of Pretoria, Union of South Africa. In his foreword, Mr. Timmerman says, "As a result of the representations made by the mining, commercial and industrial communities about 15 years ago regarding the low rates levied by the South African Railway Administration on certain classes of traffic, and the reply of the administration contending that such rates were justifiable as a large proportion of the total transport expenditure consisted of constant costs, attempts were made by me to dissect the expenses in order to determine what portion of costs were fixed and independent of the volume of traffic." Part I of the study is entitled "Characteristics of Railway Costs," and includes chapters on constant and variable costs, the long-period analysis, computation of index numbers of the various salary and wage groups employed on the South African Railways, cost per train-mile in relation to volume of traffic, and principles of railway rates. Part II consists of historical, analytical and statistical appendices, which are obtainable from the author.

The Iowa Pool; A Study in Railroad Competition, 1870-84, by Julius Grodinsky. 184 pages, maps. Published by the University of Chicago Press, 5750 Ellis ave., Chicago 37. $4.

The Iowa Pool stands out as an organization unprecedented in American business

history. At the opening of the 1870's the three companies controlling the Chicago-Omaha road—the Chicago & North Western, the Chicago, Burlington & Quincy and the Chicago, Rock Island & Pacific—banded together, with no written contract, to fix rates and to divide business advantages. An era of free competition gave almost unlimited powers to key men in the railroad business: Jay Gould, J. F. Joy, W. H. Vanderbilt, J. M. Forbes, and others. They are seen here as they fought out the policies which were to lead to consolidation and to development of the modern railroad system. The author's thoroughgoing demonstration of why competitive conditions made it imperative for the central western railroads to stabilize their rates is an illuminating contribution to the history of American railways.

Trains, Tracks and Travel, by T. W. Van Metre. Eighth edition, 432 pages, illustrations. Published by Simmons-Boardman Publishing Corporation, 30 Church st., New York 7. $4.50.

Now in its eighth edition, this well-known text, written primarily for youngsters, but enjoyed by their "oldsters" too, contains all essential material from earlier editions, plus such new material as was necessary to bring it up to date. It contains chapters on history of railroads, track, locomotives, freight and passenger car, passenger and freight terminals, operation of trains, and railroads and national security. It has been printed on coated stock so that the hundreds of excellent photographs reproduce without loss of detail.

Oil Lamps and Iron Ponies; A Chronicle of the Narrow Gauges, by Frederic Shaw, Clement Fisher, Jr., and George H. Harlan. 187 pages, illustrations, maps, drawings. Published by Bay Books Limited, San Francisco, Cal.; all communications should be addressed to Mr. Shaw, 4 Third st., Sausalito, Cal. $5.

The histories of eight leading Pacific Coast narrow-gage railroads, together with the stories of the men who built them, are told in this book. The eight roads are the Nevada County Narrow Gage, the Lake Tahoe Railway & Navigation Co., the North Pacific Coast, the Sumpter Valley, the South Pacific Coast, the Ilwaco Railway & Navigation Co., the Pacific Coast, and the Pajaro Valley Consolidated. Each story is accompanied by a map of the road including a track profile. There are several scale drawings of locomotives and ships included, as well as numerous photographs from various collections.

Business . . . Big and Small . . . Built America. 172 pages, illustrations, charts, tables. Available from J. Carlisle MacDonald, assistant to chairman, United States Steel Corporation, 71 Broadway, New York 6. Free.

The foreword to this publication states, "The future of the United States seems threatened by the ideological concepts of a few theorists and ambitious politicians who contend that certain American industrial companies are too big and should be broken up into pieces. United States Steel is a favorite whipping boy in this attack, quite regardless of its great contributions to the

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PERIODICAL ARTICLES

Transport Documentation. Published by the Netherlands Transport Institute, Laan Copes, Van Cattenburch 46, The Hague, Netherlands. Price, per series of 1,000 abstracts to be delivered in about 10 monthly installments, 32 Netherlands guilders.

"Transport Documentation" forwards monthly to its subscribers summaries of articles published in principal transportation journals throughout the world. The copy received for review contains summaries of articles on road transport, rail transport, shipping, air transport, postal and telecommunications service, travel, and town and country planning, as well as general transportation articles concerning employees, economics, coordination, etc. Most of the articles are abstracted in English, but there are some in French. The abstracts render as accurately as possible the point of view of the author without criticizing it.

Why Airlines are Winning the Passenger Battle, by Raymond Hannon. Railroad Magazine, July, 1950, pp. 12-31. Published by Popular Publications, 205 East 42nd st., New York 17, 35 cents.

That railroads lack the know-how to promote passenger travel, is the opinion of the author of this article, whose business is that of promoting airline travel. Citing specific examples, Mr. Hannon explodes some old theories regarding division of air and rail travel, and chides railroad executives for their failure to publicize and aggressively advertise what he believes to be a generally superior transportation product. Airlines, he says, are deliberately misleading in their advertising, first daring, then shaming people into flying, while railroads, maintaining too high ethical standards, fail to get as much value for their advertising dollar. When the airline promotes the airplane as the most "modern" method of travel, Mr. Hannon points out, it is saying that "a vehicle famous for rough riding, and airsickness, subject to the whims of the weather, cramped with a get-as-many-in-as-possible seating arrangement and operated on the every-plane-is-a-smoker principal, is the finest way to go places." Terming the railroad brotherhoods a form of "built in strangulation," Mr. Hannon points to their apparent desire to "inflict as many wounds from within as other forces are inflicting from without." Yet despite these forces and the "unbelievable and unnecessary mass of regulatory legislation" which the railroads must live with, Mr. Hannon feels that a determined railroad industry can rise to meet the competitive threat, and win. The railroads have a vast background of romance, and a "fantastic" ability to hold the devotion of over 250,000 railroad fans. With such potent sales assets, and a spirit of aggression, he affirms that present passenger trends could be reversed.

All the Railroads Want is a Fair Deal, by John L. Beckley. Railway Progress, July, 1950, pps. 2-6. Published by the Federation for Railway Progress, 1430 K. st., N. W., Washington 5, D. C.

This article, reprinted from the July issue of Reader's Digest, says it is not dry rot that makes the railroads lose ground, but the fact that the government blithely keeps helping their competition. To prove his point, the author cites examples in waterway, air line, motor truck and parcel post transport.

The Rape of Our Roads, by Frederick G. Brownell. Reader's Digest, June, 1950, pp. 137-140. Published by the Reader's Digest Association, Pleasantville, N. Y. Single copies, 25 cents.

Mr. Brownell cites instances of how overloaded trucks are breaking up our highways faster than we can find money to replace them, and how drivers outwit weighing stations. His article is condensed from the Buffalo, N. Y., Evening News.

Meet Me at Grand Central, by C. Lester Walker. Reader's Digest, June, 1950, pp. 130-134. Published by the Reader's Digest Association, Pleasantville, N. Y. Single copies, 25 cents.

This article, condensed from the American Mercury, contains many interesting facts about Grand Central Terminal—why and how it was built, how the signal system works, how it serves as a "city within a city," how its police force operates, how the telephone information bureau works, etc.

Bottom-Up at Brake Shoe. Business Week, May 27, 1950, pp. 80-83. Published by McGraw-Hill Publishing Company, 330 W. 42nd St., New York 18. Single copies, 25 cents.

American Brake Shoe Company has avoided income dips to some extent by diversifying part way out of the rail equipment field. But its president thinks his policy of delegating authority has helped, too.

Japanese Railways—Operation U. S. Style, by Lt. Col. Jean M. Gray. Norfolk & Western Magazine, June, 1950, pp. 330 et seq. Published by the Norfolk & Western, Roanoke, Va.

Col. Gray, who is on leave from the N. & W. locomotive department, reviews the early history of Japanese railways, describes their present equipment, and gives a very interesting account of railroading in Japan today.

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